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THE—*

* AMERICAN *
* FLORIST.

A SEMI-MONTHLY JOURNAL FOR THE TRADE.

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VOLUME II.
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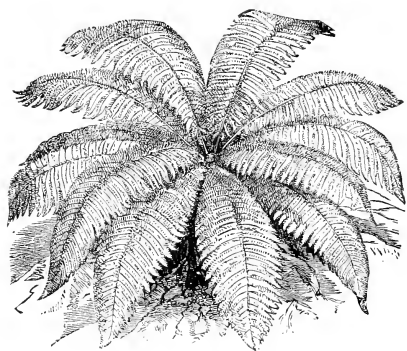
CHICAGO:
AMERICAN FLORIST COMPANY.

1887.

10

L.	Odontoglossum Vexillarium.....	440	Rose, Bennett, Treatment of for Profit.....	270	Society of American Florists, Future of the.....	7
Labeling.....	One Year.....	473	Roses, Best New French for 1886.....	85	Society of Indiana Florists.....	281
Lælia Aneups Alba.....	Orchids.....	256	Roses, Black Spot on.....	34	Spraea Confusa.....	314
Lagararias.....	Orchids at Albany.....	81	Rose Buds, Blooming.....	334	Spurge.....	285
Large or Small Houses.....	Orchids, Raising.....	34	Rose, Cleopatra.....	336	Spur Flowering Plants.....	332
Learn to Observe.....	Orchids, Now in Bloom.....	163	Roses, Compost for.....	443	Spiraea Van Houttei.....	114
Lee, Francis L., Obituary.....	Orchids for Cut Flowers.....	38, 157, 225, 248, 265, 311	Rose, Constitution of the.....	442	Steams Heating for Greenhouses.....	328
Leptoserium Bullatum.....	Orchids at Rochester.....	234	Roses, Cutting.....	348	Stocks.....	300
Leptoserium Maritima.....	Orchids at New Rochelle, N. Y.....	234	Roses, Cut Foot in.....	78	Stock Holes.....	340, 348
Leucanum Hipodamia.....	Orchids at New York.....	348	Roses for Winter Forcing.....	372	Street Fairs, The.....	482
Lilacs.....	Orchid Show at New York.....	260	Rose, Fungus on the Roots.....	442	Stock, New Perpetual Ten Week Princess Alice.....	308
Lilacs, Double.....	Orchid Show at New York, The.....	260	Rose Growing at Summit, N. J.....	184	Succession Crops in Greenhouses.....	320, 325
Lilac Marie Lagnay.....	Orchids of the Future.....	549	Rose Grabs.....	82	Substitution.....	300, 325
Lily of the Valley.....	Overworked Florists.....	301	Roses and Grabs.....	44	Sun and Propagation.....	16, 18
Lily of the Valley, Foreign.....			Rose Earl of Dufferin.....	443	Sulphide of Potassium.....	20
Lime Water.....			Rose Her Majesty.....	38, 48, 256, 268	Sweet Pea Butterfly.....	64
			Roses, Hybrid in Pots after Blooming.....	292		
			Rose, La Marquise.....	248		
			Rose, Lady Alice.....	546		
			Rose Lucile, New Tea.....	536		
			Rose, Madame de.....	444		
			Rose, Madame Launay.....	25		
			Rose, Nameless Scheme.....	30		
			Roses on Open Roots vs Budded or Grafted.....	372		
			Rose, Parlati.....	114		
			Rose, Papa Gontier.....	82, 201, 257		
			Rose Pest, A.....	62		
			Roses in the Paris Markets.....	107		
			Rose, Princess Beatrice.....	448		
			Rose, Preserving the Constitution of the.....	439		
			Roses, Put for Market Purposes.....	85		
			Roses, Pruning and Tying.....	83		
			Rose Reminders.....	441		
			Rose Self-Fertile.....	478		
			Roses, Stock-Combarding.....	324, 348, 384, 442, 506		
			Rose Sol.....	288		
			Rose, The Bennett.....	356, 226, 257, 261, 265		
			Rose, The Support.....	305		
			Rose, The Puritan.....	371		
			Roses, The Bennett and American Beauty.....	246, 290		
			Rose, The Ring.....	419		
			Roots and their Work.....	409		
			Ruellia Macrantha.....	467		
			Rose Sol.....	288		
			Rose, The Bennett.....	356, 226, 257, 261, 265		
			Rose, The Support.....	305		
			Rose, The Puritan.....	371		
			Roses, The Bennett and American Beauty.....	246, 290		
			Rose, The Ring.....	419		
			Roots and their Work.....	409		
			Ruellia Macrantha.....	467		
			Rose Sol.....	288		
			Rose, The Bennett.....	356, 226, 257, 261, 265		
			Rose, The Support.....	305		
			Rose, The Puritan.....	371		
			Roses, The Bennett and American Beauty.....	246, 290		
			Rose, The Ring.....	419		
			Roots and their Work.....	409		
			Ruellia Macrantha.....	467		
			Rose Sol.....	288		
			Rose, The Bennett.....	356, 226, 257, 261, 265		
			Rose, The Support.....	305		
			Rose, The Puritan.....	371		
			Roses, The Bennett and American Beauty.....	246, 290		
			Rose, The Ring.....	419		
			Roots and their Work.....	409		
			Ruellia Macrantha.....	467		
			Rose Sol.....	288		
			Rose, The Bennett.....	356, 226, 257, 261, 265		
			Rose, The Support.....	305		
			Rose, The Puritan.....	371		
			Roses, The Bennett and American Beauty.....	246, 290		
			Rose, The Ring.....	419		
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			Ruellia Macrantha.....	467		
			Rose Sol.....	288		
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THE AMERICAN FLORIST



America is "the Prow of the Vessel; there may be more comfort Amidships, but we are the first to touch Unknown Seas."

Vol. II.

CHICAGO AND NEW YORK, JANUARY 1, 1887.

No. 34.

THE AMERICAN FLORIST

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Marshall P. Wilder.

The death of Marshall Pinckney Wilder, at his home in Dorchester, near Boston, on Dec. 16, at the ripe age of 88 years, closes a most remarkable career in the history of American horticulture. No man was more widely known or more highly respected. His name is written on every page of the record of pomology in this country. His long experience, keen interest, and vast knowledge, covering the entire scope of horticulture, makes his loss an almost irreparable one. His is a most notable example of a life's work for the improvement and elevation of this noble art.

Mr. Wilder was born in Rindge, N. H., Sept. 22, 1798. His parents were Samuel Locke Wilder and Anna Sherwin Wilder, both of Rindge. His early education was received in the common schools of his native town, after which he completed a course of study at the Ipswich academy. After graduating from that educational institution, he for a number of years assisted his father on his farm in Rindge, and being an enthusiastic admirer of nature, and an ardent student of botany, and all else pertaining to horticulture, made it the most elegant and productive of any in that section of the country. Being possessed of a naturally ambitious mind, he established himself in business as a partner with his father, in 1820, in the old-fashioned country-store line, in his native town, where he built up a lucrative trade. The following year he was appointed postmaster of Rindge, and he served in that capacity during the remainder of President Madison's term of office. This quiet country town proved too dull for him, and in 1825 he removed to Boston, and in company with Henry Payson, commenced business as a retail dealer in West India goods and groceries.

In 1827, in company with Joseph Smith,

and under the firm name of Wilder & Smith, he carried on the same business, and in 1830 Mr. Smith retired from the firm. In 1838, he formed a co-partnership with Isaac Parker and A. W. Blanchard, the three carrying on the business of traders in domestic goods, under the firm name of Parker, Wilder & Co.

In 1853, Mr. Wilder removed his residence to Dorchester, where he owned a

and pomologists. His opinions and methods of culture of these fruits were eagerly sought for and followed by the leading fruit-growers of this country and Europe.

He joined the Massachusetts horticultural society in 1830, was its president from 1840 to 1848 inclusive, and has ever been one of the warmest friends of that society. He was one of the founders of the American pomological society, and with the exception of one year has been its president since its organization. He was also one of the founders of the United States agricultural society, and was its president from 1852 to 1858 inclusive; also of the New England historic-genealogical society from 1869 to the present time. He initiated the organization of the state board of agriculture in 1852, and the establishment of an agricultural college.

In 1841 he was elected state senator, and served as president of that body in 1849.

Mr. Wilder devoted his leisure hours to his pen, and filled several large volumes with the description of fruits produced under his own personal inspection.

On Sept. 22, 1883, Mr. Wilder was tendered a complimentary banquet at the Parker house, the occasion being his 85th birthday. The gathering was a notable one. Dr. Holmes referred to Mr. Wilder as: "The venerable and venerated friend who has outlived the fruits of fourscore seasons, and is still ripening as if his life were all summer."

Mr. Winthrop wrote: "No other man has done so much for our fields and gardens and orchards. He has distinguished himself in many other lines of life, and his relations to the legislature of Massachusetts, and to the historic-genealogical society will not soon be forgotten. But his name will have its most enduring and most enviable association with the flowers and fruits, for whose culture he was foremost in striving, both by precept and example. He deserves a grateful remembrance as long as a fine pear is relished, or a beautiful bouquet admired," Cox, Rice said: "There is hardly a public enterprise of the last three generations, scarcely a pursuit in



Marshall P. Wilder

large tract of land, and, building a fine set of greenhouses, and establishing nurseries, devoted all his spare time to agricultural pursuits and pomological experiments. He experimented largely in the growth and cultivation of the pear and apple, and from his extensive nurseries the Boston and New York markets were for many years supplied. The improvements that he made in producing choice varieties of apples and pears, attracted world-wide attention, and placed him in the head rank of famous agriculturists

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life, or an institution of patriotism, discipline or charity, that does not bear the signet of his touch, and feel the vigor of his co-operation. Why, sir, it may be said, almost with literal truth, that the trees which this great arborist has planted, and cultivated, and loved, are not more numerous than the evidences of his handiwork in all the useful and beneficent departments of life; and all the flowers that shall grow to the end of time ought to bear fragrance to his memory."

The funeral services were held at the congregational church in Dorchester, Sunday, Dec. 10. It was the published request of the family that no flowers should be contributed, and as a consequence there were few floral tributes. In front of the pulpit a shield of ivy leaves, with knots of calla lilies and a wreath of camellias, on which were the initials "A. & H. A. Co.," "P. C.," and the date of the organization of the company, 1838, and that of Mr. Wilder's command, 1856. There were also a cross and crown, the cross of roses, carnation pinks, etc., and the crown of camellias, roses and stevia, from the Boston commandery, Knights Templar; a bunch of orchids, from the New York horticultural society; a wreath of ivy and roses; a bunch of chrysanthemums, from Mr. John Thorpe, secretary of the New York horticultural society, and a cross of ivy leaves and camellias from employes. The gift of the Massachusetts horticultural society took the form of a sickle of maiden-hair ferns, violets and lilies of the valley, with a handle of red carnations and narcissus, and this and a sheaf of wheat were placed in the chancel while it stood in the church.

The pastor of the church delivered a lengthy address from which we select this paragraph:

"It was through the wisdom of Mr. Wilder that the Massachusetts horticultural society secured its buildings and its permanent income for the prosecution of its excellent work. Here we mark the extraordinary strength of the man's character. He was no dilettante farmer, attempting to direct others to do what he did not fully understand himself, squandering a fortune in doubtful experiments; but rather a genuine student, and a wise manager. He engaged in and did much to create the science and art both of horticulture and of pomology. He entered the laboratory of nature and learned some of her secrets—how soils and seeds were suited to each other, the effect of hybridization, the influence of various climates on fruits and flowers, the possibility of seeing foreign products naturalized among us. He sought nature and listened and watched for the footsteps of the benovolent Deity walking still 'through the garden at the cool of the day,' and the results of his studies and experiments were then given forth to the world for its benefit. Thorough work, patient work it was at home and then the same abroad. What he did he made tell in the societies he organized and the institutions he founded. And so his services to men become self-perpetuating."

The interment was made in the Wilder family lot at Forest Hills cemetery.

At a special meeting of the Massachusetts horticultural society preliminary action was taken on the death of the late ex-president. Eulogistic remarks were made by President Wolcott and ex-president W. C. Strong. The following committee was appointed to submit resolutions on the death of Mr. Wilder: Ex-Presidents Strong, Hovey and Hyde, Messrs. E. L. Beard and Robert Manning.

The following committee attended the funeral as representatives of the society: Messrs. J. F. C. Hyde, J. B. Moore, C. C. Story, Francis Parkhurst, John Cummings, President H. B. Wolcott, B. G. Smith, C. H. B. Breck, F. L. Ames, O. W. Fowle, R. Manning, J. Robinson, H. H. Hunnewell, H. W. Fuller, C. S. Sargent, W. H. Spooner, E. L. Beard, O. B. Hadwin, F. H. Appleton, E. W. Wood, J. G. Barker, J. H. Woodford, C. N. Brackett, J. C. Hovey.

WOOTTON.

The residence of Mr. Geo. W. Childs is situated about two miles from Bryn Mawr, a station on the Pennsylvania railroad, and ten miles from Philadelphia. It was at this beautiful place that Mr. Childs so elaborately entertained about 800 of the florists and their friends on the 20th of August last, during the convention of the National society, and as only a small proportion of the florists of America were present on that occasion it may interest many of our craft to know something of this country seat. Wootton, as it is now called, was at the time Mr. Childs bought it, in 1880, but a rough farm of about 115 acres. This has been converted into park and garden, with a lawn of thirty-five acres in most perfect keeping, and one of the finest "Queen Anne" country houses to be found in America.

Entering at the lodge, one sees on the left a fine carpet bed containing about 25,000 plants, a very striking feature. Leaving this by a gentle curve in the carriage drive we come to the stables and coach houses, fitted up with all modern improvements, almost in front of which is a fine plant of *Abies nobilis*, sent as a cutting to Mr. C. by Professor Meehan when with the Hayden exploring expedition in the Rocky mountains. At the rear of the stables, and placed as a facing to a fine grove of natural timber, are some large clumps of miscellaneous plants, very interesting to many visitors, as they contain many things not often seen in this present rage for carpet and other formal styles of bedding. In front of these is a fine stream of running water, which is a great attraction to the whole, and planted on one of the natural curves are some handsome clumps of arundo, rivina and eulalia. Immediately in the rear of these again is a bed of fancy and ferns, which seemed to luxuriate in the partial shade, and made a happy blending between the natural woods and the dressed lawn in front; passing on up through this glen we come to a grotto of roots, through which a small waterfall trickles, and in which it is intended to collect every known variety of fern to be found hardy in North America, all of which will be correctly named. Passing on south from this we strike the open lawn, directly facing the house. Here are dotted among lots of choice trees and shrubbery some fine plants of *Picea pungens*, *redinsopis*, *Taxus canadensis*, pines in variety, etc., which, for the short time they have been planted, are remarkably thrifty trees; these, as well as other similar classes, are very effectively arranged for future development.

In front of the house stands the magnificent vase illustrated and described in the *FLORIST* of Nov. 1, and above this, on each side of the steps leading to the front door stand two grand plants of *Cycas revoluta* and a fine one of *Araucaria Bid-*

willi. In close proximity stands a purple beech planted by Madame Nilsson. On the west side of the house is an effective design planted with coleus and other summer plants.

On the gentle slope northwest of the house are situated most of the memorial trees planted by illustrious visitors to Wootton. These are all to be labeled with botanic names, circumstances of planting, etc., thus giving the collection a sentimental as well as scientific interest for the future visitor. Noticeable among them is a fine piece of *Picea Nordmanniana* planted by Mrs. Nellie Grant Sartoris, and in close companionship a fellow tree and a *Quercus palustris* and Norway spruce planted by the three daughters of the late F. A. Drexel, all growing into nice trees; but those near by, planted by Thos. Hughes and Herbert Spencer, are both dead, which is much to be regretted. There are on this broad expanse of lawn many other trees planted by men of mark, but their enumeration would take too much space. There is one other, however, which probably would interest all who behold it; standing close to the lower or farm entrance is probably the finest specimen in the country of *Carya porcina* (common hickory); stretching away from this is a fine avenue of *platanus* leading to the farm, dairy and greenhouses.

The greenhouses are a fine combination of houses built to suit the various classes of plants required for a well-appointed gentleman's garden, and their contents show the skill of its able superintendent, Mr. John M. Hughes, as do all other parts of this fine place. Among the many other choice attractions of the greenhouse, a fine bunch of gloxinias was particularly striking.

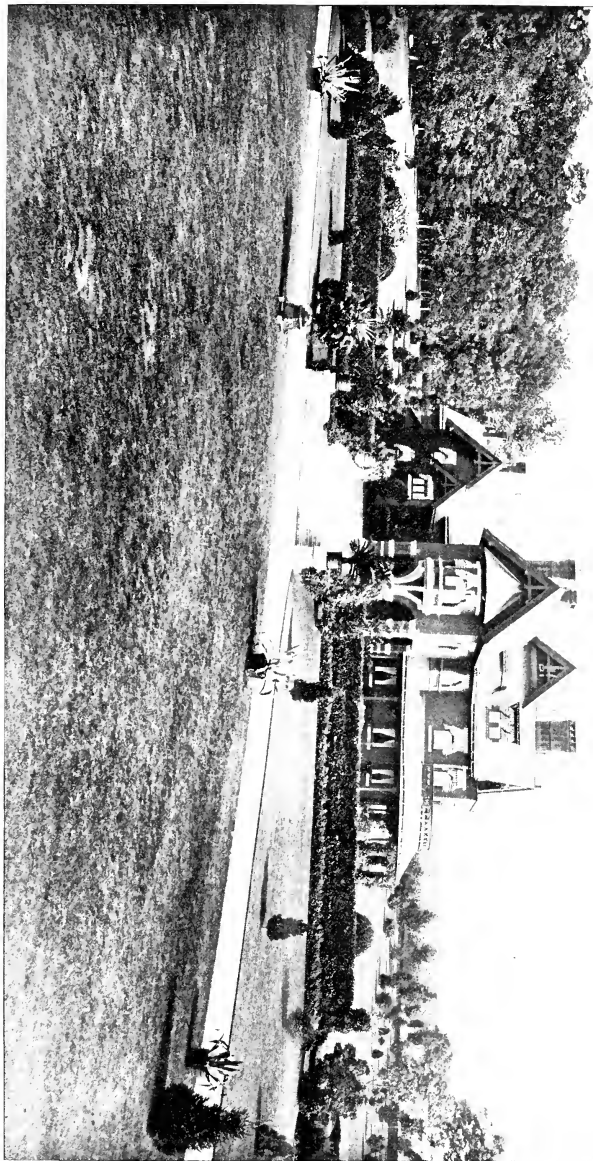
Running at the bottom of the vegetable garden is another fine stream of water, from which is pumped (itself furnishing the power), all the water required for the farm and greenhouses. In the same locality is the dairy, supplied with a constant stream of pure water from a natural spring flowing into a shell presented to Mr. Childs by the late General Grant and brought by him from Yokohama, Japan. From this shell the water flows gently over beautiful clear white tiling all around the dairy, thus forming a cooler for the milk; everything is in the most perfect order, and the whole building is unique in every way.

After taking a comprehensive view of this fine place one is greatly impressed with the splendid results accomplished in the short space of six years. Not only lavish expenditure, but the most refined taste were requisite for this end, and I only wish that many others with wealth at their command might be induced to become as liberal patrons of horticulture, for by such is our calling elevated and refined. Here the gardener is not treated as a necessary evil, as is often the case, but as a friend and trusted steward, employer and employed mutually considering each other's best interest and happiness.

The accompanying engraving beautifully illustrates the house and part of the lawn near to it, with the fine grove of natural timber in the distance, whose beautiful shade protected the florists and their friends while enjoying the lunch provided by Mr. Childs on the occasion of their visit. But this picture of Wootton, though excellent, does not give a true impression of the harmonious blending of art and nature which is so striking to all visitors; it must be seen to be appreciated.

Summit, N. J.

JOHN N. MAV.



WOOTTON, RESIDENCE OF GEORGE W. CHILDS, NEAR PHILADELPHIA.

Rose Growing at Summit, N. J.

BY WILLIAM E. ALCONER.

Summit is some eighteen miles from New York, and is a beautiful, hilly, well-wooded place, fast filling up with handsome residences. As a rose-growing depot it is famous throughout the country and in its neighborhood, and at Madison, some four miles distant, are located many of the leading cut-flower growers who supply the New York market. Prominent among the rose-growers is Mr. De Forest, an enthusiast and a most genial gentleman, who has one of the largest greenhouse establishments in the country. Mrs. De Forest is just as much interested, and as great an enthusiast in all that pertains to flowers as is her husband.

Mr. De Forest's greenhouses consist of many ranges of three-quarter span houses twenty feet wide by two hundred feet long; also some 12-feet-wide, and 6-feet-wide propagating houses, but nearly all run about the same in length. They are wooden houses, built of the best material and first-quality French double-thick glass. I use second-quality double-thick French glass and think I am doing well, for it is clean, fine glass; but Mr. De F. believes that the first-quality is more than worth the extra cost. He has resolved not to build any more houses of wood, and is now clearing ground for iron structures. In the rose-houses the beds are not made upon the ground, but in all cases are raised above it on plank benches.

There are two sets of greenhouses, a few hundred yards apart; one is heated by steam (three of Mr. De Forest's steam boilers set alongside of each other) and the other by hot water. Mr. De Forest greatly prefers the steam-heaters; they are very efficient, quick to act, easy to regulate, easy to stoke, and so far as fuel is concerned, by far more economical—eight tons of coal in the steam-heaters giving the same results as fourteen tons in the hot-water apparatus. The steam-heat has no injurious effect whatever upon the plants.

The roses grown are Bon Silene, La France, Niphetos, Catherine Mermet, white Catherine Mermet, Bennett and American Beauty; also, but in more limited numbers, Captain Christy, Her Majesty, Paul Neron, Magna Charta, Mme. Gabriel Luizet, Jacqueminot, and a few other hybrid remontants. All the teas are now in fine growth and flower, but of the H. R.'s some are being started, while others are not yet "shut up."

Bon Silene, La France and Niphetos occupy the back and front benches, which are raised to permit near the glass, and are planted out and kept tied down. The Bon Silenes do not color as well as they do at Mr. May's, about a mile away. The Niphetos are not upon their own roots. Mermetts comprise the majority of the stock grown, and are beautiful. They occupy the central beds, and are, in most cases, planted out, but one house is largely filled with them in pots. The great majority are 1-year-old plants, but one house is nearly filled with 2-year-olds. One-year-old plants are said to yield the largest crops, but 2-year-olds the finest blooms. A cane stake is applied to each young plant. The white Mermet is in every way except color of flower, the exact counterpart of its parent. It originated with Mr. De Forest, who considers it distinct from the white variety obtained about the same time by Mr. Taplin, of Maywood, N. J.

Bennett is growing and flowering free-

ly planted out on the front middle benches. But the American Beauty is the beauty. Planted out in the middle benches, in fine luxuriance of wood and foliage, and with one bud terminating each shoot, it stops not till it has, or nearly, reached the glass. Its large size, deep rose-colored color and delicious fragrance, also the long leafy stem that may be cut to each rose, add much to its value. Mr. De Forest says that so far he has not succeeded well with Her Majesty, but he is now satisfied from observation elsewhere that he has found out the cause of its backwardness with him, and that is that it needs a lighter and more porous soil than he generally uses for his roses. Mme. Gabriel Luizet is his great favorite, and he has recently imported largely of it from Paul, of England. Paul Neron and Magna Charta are grown for March flowers. Their immense size always commands attention. Jacqueminot for color stands unrivaled. Mr. De F. is very fond of Captain Christy, and grows a lot of it because he himself likes the rose, and not for market, as it is too small for that purpose.

The soil used is from rotten sod. In the neighborhood is an old apple orchard that had been in grass for many years, from which he bought the sod. He turned over the sod with a plow, then forked it into the wagons, carted it home and made a pile of it, putting a layer of loam and one of manure alternately, but not more than twice as much loam as manure. This was done in the fall, and it will be allowed to remain in the heap till next May, when it will be turned over and used for the bench-beds.

Clean cow-manure alone is used for manure. All the beds and pots are mulched about one to two inches thick with it. It is obtained from dairymen, and costs \$36 for twenty tons.

There are large tanks of liquid manure in the greenhouses, and steam-pipes run through them to warm the water. It is applied by steam-pump power. Mr. De Forest believes in limited, rather than a liberal, use of liquid manure, and not at all till the roots have first pretty well exhausted the soil.

His foreman rose-grower is a young man whose experience has been confined to this place. A few years ago he was employed in the stable, thence he went to work in the greenhouses, and soon became so attentive and proficient that Mr. De Forest put him in full charge, and his employer now considers him one of the best rose-growers in America. Professional gardeners are too set in their ways and not open enough to suggestions and fresh points. A regular gardener is employed for the orchids, palms, etc., and the other departments.

Mr. De Forest apprehends a great future for orchid flowers and has resolved to supply the market. He now has 1 should think, between one and two thousand plants, but this, he assures me, is only the beginning; he intends to fill several houses (and each of his houses is 200 feet long) with orchids alone. No, he does not mean to displace roses to make room for orchids, but to add more new greenhouses.

At Mr. John May's place I had only twenty minutes to spend—barely time to walk through the greenhouses, and, unfortunately, Mr. May was not at home. It is purely a rose-growing place. Houses of three-quarter span. Heated by hot water. Six of Hitchings' boilers are at work in the same cellar, two and two together. Mermetts are lovely, Bon Silene has the brilliant Boston lace, the capricious Duke

is behaving himself decently, Jacqueminots in pots are in full bloom and American Beauty is more beautiful than ever.

The Bride is lovely. Purely a Mermet, white, free, vigorous, leafy, clean and healthy, and house after house full, and in bloom. But how graciously Her Majesty smiles on John! Here is a whole houseful (not yet started or pruned) more luxuriant than I ever saw Jacqueminots, this year's "canes" like fishing rods, up against the glass and bending back under the ridge-pole of the span-roofed house. Tens of thousands of young stock—in, rooting, being potted, and established in pots, occupy the propagating benches.

Dec. 10, '86.

Chrysanthemums for Cut Flowers.

BY ROBERT CRAIG.

The chrysanthemum season is nearly over, but the subject of their culture and the profits attending it is still eagerly discussed by the Philadelphia florists, and, I presume, a like interest is taken in the matter all over the country. Hereabouts opinion is divided as to whether they are (from a commercial point of view) a curse or a blessing. Some say, "There is no money in them," "they depress the price of other and better flowers"; "they pay neither grower nor retailer, etc." One rash individual I met to-day was counselling their entire abandonment; "don't put a cutting in, let them go," he said; but, he must not think the "Queen of Autumn" can be so easily dethroned; she is now thoroughly established in the affections of the people, and those misguided mortals who think she may be ignored must eventually learn their mistake. The public will have chrysanthemums in their season, and if the proper varieties are well-grown they will pay fairly well. It is worthy of note that those who have grown them well are satisfied with the result; the objectors are mainly those who have either not grown any or have grown them poorly.

One reason for complaint is that too many inferior sorts have been grown, another is that too many November flowering varieties have been grown (glutting the market at that time), to the neglect of the few excellent sorts which flower very early (in September and October,) and some superb kinds which come in December, the latest of them lasting nearly, if not quite, until Christmas. It is not my purpose to say much about growing them for sale as pot plants. Mr. Thorpe's article of last year covers that ground completely. I wish particularly to allude to a method of growing them, planted out, under glass, in summer, which three years' experience has proved to be vastly superior to the old plan of growing them out doors, either as pot-plants or in the open ground. In the latter way the plants are disturbed in the lifting, (no matter how carefully done,) so that perfect blooms are not obtained.

The best way is to strike the cuttings in March, April, or early in May; pot in 2½-inch or 3-inch pots; keep them in a cool house, near the light; they will be ready to plant on the benches or solid beds about the first of June, or as soon as the houses are emptied by spring sales. I use light, rich soil, give air freely, syringe regularly, at least every other day, pinch the tops out every two or three weeks until about the first of August. As soon as the buds are set, water with weak water once or twice a week, according to the weather and the vigor of the plants. A little fire-heat is sometimes necessary



LA TRIUMPHANTE. PHÆBUS. WILLIAM HOLMES. NEW CHRYSANTHEMUMS.

in November and December, to prevent the flowers from rotting in cold, damp weather; at such times a temperature of 45° is better than a lower one.

All who give the above plan a trial, will be gratified by the profusion, size, and perfection of the blooms; if very large blooms are desired, it will be necessary to disbud all but the crown-bud. Plants grown on benches in this way, may be lifted (if carefully done) without the loss of a leaf, and will produce finer flowers than those grown outdoors and lifted. The only objection to this system is that it takes the room in the house all summer; but most florists have houses which may be emptied from June until November or December, when the time comes for filling them with pot roses, etc., for spring sales.

As to the varieties to grow, I will name only those that have been tested, and proved to be the most profitable, naming the earliest first. For September, see Madame Desgrange (white Japanese), and Golden Madame Desgrange (yellow). For early October, La Neige, Chinese (white), is the only variety I know of likely to pay well; it is a *gem*—pure white, of perfect form, and very profuse. Several of our best growers have failed to have

first-rate results growing it in the open air, but when grown under glass it is one of the very best.

For late October, the best are Glorioso (yellow Japi), Golden John Salter (yellow Chinese), Lady Selbourne (white Japanese), Compactum (pink Chinese); the bloom of the latter can hardly be called first-class, but it is desirable for its profusion, and on account of the scarcity of pink ones at this time. I know of no good red one which blooms in October; such a sort would be very useful. For early November we have Elaine (white), Tokio (red), Golden Prince (yellow), Mrs. George Bullock (large white Chinese), Lady Slade, (pale pink).

For late November, C. H. Glover (yellow), Diana (white), Jardin des Plantes (yellow), Pietro Diaz (dark red), Abd el Kadir (crimson, yellow center, single), Tubiflorum (pale pink, very graceful).

December is rich in grand varieties. Among the very best are: James V. Murkland (single white, bright yellow center), Mrs. Wm. Mencke (chrome yellow), Snowstorm (pure white, very profuse), Fantasia (delicate pink), Moonlight (white), Fulton (yellow), Cullingfordii (dark red), Sadie Martinot (yellow), Lord Byron (orange yellow), Ben

d'or (yellow), H. Waterer (dark bronzed yellow), Robt. Bottomly (white), Comte de Gerniny (mink), Thunberg (yellow), Abd el Kadir, if kept cool, will last well into December. The varieties marked * will be fit to cut late in November, but will last.

Philadelphia, Dec. 17, 1886.

Three New Chrysanthemums.

New and meritorious chrysanthemums are numerous this season, and cultivators will have to make some important additions to their collections for another year. Japanese varieties, as usual, preponderate, and the trio represented (necessarily much reduced in size) in our illustration, are remarkable alike for their distinctness and fine substance.

William Holmes is one of the best early flowering Japanese we have, the plant of good, compact, yet free habit, being admirably adapted for culture in pots in the conservatory. The blooms are of medium size as regards diameter, but they are relatively deep with recurving flat or slightly fluted florets, of a deep red color, the reverse bronze, and the young incurving florets form a pretty contrast with the other portion of the bloom. As an October variety this will take a prominent place, and it may be seen at some of the earliest shows, the plant being useful for grouping. It was certificated at the Royal horticultural society's meeting, October 12, this year. It was also again honored by the National chrysanthemum society, October 13.

La Triumphante is a handsome Japanese variety, somewhat early, but it forms a grand bloom and will make an excellent show variety. In the winning stand of twenty-four varieties at South Kensington last week it was a very prominent back-row bloom, one of the best in the collection, and it was shown in even better condition at the Westminster aquarium the following day. On the same occasion certificates were awarded for it by the floral committee of the National chrysanthemum society to Mr. Shoosmith, Hythe, Messrs. H. Cannell & Sons, and Mr. Martin, one of the blooms shown by the last named being represented in our illustration. The blooms are of good size when well grown, with straight, broad, rather flat florets of a pale purplish rose color, a delicate and pleasing shade. It is one of Reydellet's varieties, and is included in the revised edition of the National society's catalogue issued this year.

Phæbus is of English origin, having been raised by Mr. Alfred Salter, and sent out by Messrs. J. Veitch & Sons in the spring of the present year. It is a Japanese variety with long recurving fluted florets, somewhat flat in its early stage, but assuming the character depicted in our engraving when it becomes more developed. The bloom figured was shown by Mr. Martin on the same occasion as La Triumphante, and, like that, indicated superior cultivation, being clean and of great substance, much the best example of the variety we have seen. It is noteworthy for its bright, clear yellow tint, a shade something in the way of Frizon, very pure and rich. Both Messrs. J. Veitch & Sons and Mr. Martin obtained certificates for the variety at the meeting named.—*Journal of Horticulture.*

EVAPORATING the juice from tobacco stems is recommended by writers in the *London Garden* as far better and safer than burning the stems for fumigation. The juice is evaporated in any manner most convenient.

Chrysanthemums.

By WILLIAM J. ALCONST.

I grew, this year, some 1,300 plants, in 263 varieties, besides many seedlings. All were grown planted out of doors till October, when we lifted the greater part of them. Of these we potted a lot and bloomed them under glass, but the large majority were transplanted into and placed in sheltered places out of doors and there allowed to stay and flower. One of these banks is protected by a light wooden frame, covered over and around with calico, in John Thorpe's "snug harbor" style. It is sixty-two feet long by nine feet wide. From these out-of-door banks we got capital blooms till the 18th or 25th of November, according to the weather. But in order to get perfection in chrysanthemums we must flower them under glass.

The Japanese varieties are the greatest favorites. The finely formed Chinese flowers, too, are highly appreciated, but, unfortunately, too often the plants are apt to be midwhey.

In the following notes about some of our chrysanthemums I have confined myself to their behavior here with us: Mr. Desgrange, although very early, can only be had in good condition when grown in pots and bloomed in the greenhouse. Elaine, Fair Maid of Guernsey and Lady Selborne bloom capitally out of doors. Ceres doesn't transplant well. Grown in pots and flowered indoors it is superb and soon loses its lilac tinge. Ethel commonly shows a dark green center, but when well grown it is one of our very best late whites, with heads like snowballs. Snowstorm, grown in comparatively small pots, beats all other whites for profusion. Moonlight, Jessica, Christmas Eve and White Dragon are magnificent varieties, so white, so free, so lovely, and they keep late. Edna Craig has a capital constitution, and forms large healthy plants, but I wish it were more copious and more of the blossoms would come perfect. It is quite late. James V. Munkland, Mrs. C. Carey, Mrs. Gubbins and Florence Percy, although single, when grown indoors form the loveliest bunches of snowy "shavings." Planter than these, but later and more copious, are the flat-headed Asa Gray and America, which only attain their best about the first of December. Robert Bottomly, when well done, is one of the finest, purest and largest petaled of whites; but I find it shy and often apt to go blind.

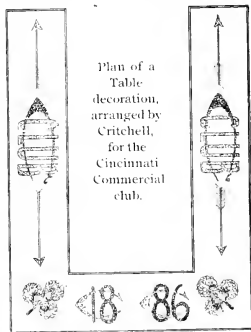
Of all the Comte de Gerniny type, Mrs. C. W. Wheeler is the best. Striking in appearance and rich in hue, it is admired and desired by all. Started early and blooms in June in the greenhouse it is very free and full. We cannot do without Hon. John Walsh, its color is so decided. It does well outside. Mrs. A. Le Mout is one of the most brilliantly colored of all, but its brightness fades very soon.

For fullness, form, quantity of bloom and goodness out of doors Baron Beust has no superior. Julia Lagrange is just as thrifty and much brighter, but its flowers are smaller. I grow quite a patch of it for its effective flowers. Cambridge is vigorous but shy. Bronze Shield is free, showy at first, but fades quickly. Minnie Miller is a good grower, and bears large heads of fine flowers, and it does well out of doors, too. But the ladies don't like its color. Lily Burgess is more of a pink purple. It reaches its best about the 24th to 25th of November, and is very full. President Arthur has the largest flowers, but we never get many perfect ones on a plant. President Parkman is a

very double late variety, but it, too, is objected to on account of its color.

Gloire de Raymonette is a gem, notwithstanding its color. It opens in October and lasts through November, bears heavy masses of flowers, and mostly all perfect ones. For out-of-door planting none are better. Its golden variety doesn't behave well with me.

Gloriosum is the best pale yellow chrysanthemum I know. It comes in early and lasts till late, and in profusion surpasses all other varieties. Capital for out-door work. From Golden Dragon I cut more masses of blossoms than from any other. John Thorpe, Jr., is very bright, but we seldom get many perfect flowers on a plant. Golden Prince is indispensable, it is so bright and free, and bears so many perfect flowers. Golden Queen is of lankier habit, but later and brighter. Grandiflorum is late and the individual flowers splendid, but it is not as free as many of the other yellows.



Golden Queen of England enters December in good condition, and is one of our most reliable late yellows. Gloria Mundi, Jardin des Plantes, Mr. Bunn and Mabel Ward are capital in their way, but the last named is sometimes attacked by mildew. Mrs. Wm. Mencke is a fine "crazy-headed" bright yellow. La Plante d'Or blooms late, has full heads and vigorous growth.

David Allan is very refractory, and Duchess, John Laing and H. Waterer will only perfect their superb flowers with good cultivation under glass, and even then are sparing of their favor.

Early Red Dragon and Source d'Or are indispensable for out-door work, and Lord Byron and Pietro Diaz for the greenhouse.

Striatum Perfectum, Julius Scharff, Triomphe de la Rue de Chatelets, Rubrum Striatum, Md. C. Audigien, M. Planchenan, Thimberg, Admiratum and Mellic. Croizette are good tall-growing kinds, and always find a place in the back rows of our out-door banks.

There are many early varieties, as Mrs. Cullingford, Mdlle. Maney, See Daniel, Mdlle. Marthe and the like, but we never seem to get up much enthusiasm for them.

A DOUBLE WHITE Phlox Drummondii which originated in this country is a novelty offered by Benary, of Ertum.

THE AMERICAN EXHIBITION at London will be opened May 2, 1887, at Earl's Court, Kensington.

Cincinnati.

Society here has been very gay, and that combined with the usual holiday rush has made business brisk.

There has been a wild scramble for Christmas evergreens this week, and the wires have been hot with demands for more holly and more ground pine. Some of the local florists have all they can handle. Others wish they had ordered a supply a bit earlier.

At a ball the night before Christmas-eve the house was profusely decorated with holly; in every nook and corner holly had been placed. There were festoons, wreaths and stars of it. Critchell did the decorations, and, by the way, he has branched out and rented a second store for the holidays.

Frank Hautsman recently designed a monster funeral piece which almost filled the side of a room. It was a broken column of white flowers six feet in height and smilax fell on either side upon an urn and a harp. Sunderbruch devised an open bible, resting upon a pedestal of fern. Upon its snow-white pages was the inscription, "I Have Fought the Good Fight."

Cincinnati does not lag very far in the rear when it comes to things unique. There was a rainbow wedding here last week, and only the bride and her maid of honor were invited. The frocks of the other maids were of pink, blue, buff and green respectively, and they carried bunches of roses to correspond, save the one who wore the Emerald Isle's color. She was happy in the possession of a bouquet of maiden-hair fern.

The Allemania club celebrated its thirty-seventh anniversary the other evening, and the floral decorations by R. A. Kelly, now with Hosp, were very good. There were four long tables running the entire length of the club's hall, and on the first was the design traced in blossoms, "1848-1886." The second disclosed, "Thirty-seventh Anniversary," the third, "Allemania," and the fourth, "1886." A mammoth floral monogram, "A-C," when dismantled, furnished corsage bouquets and boutonnieres for every guest present.

On the morning of the 17th fire did serious damage in the seed warehouse of J. M. McCullough's Sons, on Walnut street. About everything in one building was either totally destroyed or badly damaged. Of course the water ruined seed which escaped both fire and smoke. Luckily there was a large shipment of seed at one of the depots which had not yet been stored, or it, too, would have gone into the general wreck. There was an insurance of \$14,000 on the stock and \$10,000 on the building, and the McCulloughs are of the opinion that their loss will be fully covered.

Christmas novelties are to be seen everywhere. Hosp offers wicker hats, of the shapes our grandfathers wore, to be filled with flowers. Critchell has a lot of Mediterranean couch shells, which he has filled with lilies of the valley and some pretty English pot covers, which, though of paper, look for all the world like embossed leather. Said Mr. Critchell: "Our eucharis lilies have not been out of bloom for over three years. We never let them rest, and there is no flower I have that I get as much blossom from as these sweet lilies." "REN."

MR. ALBERT CLACK, of Cuyahoga Falls, O., a well-known and able gardener, died Dec. 18. Deceased was a brother of Mr. Sidney Clack, of Lake Forest, Ill.

New Year's Floral Styles.

BY OUR NEW YORK CORRESPONDENT.



MOST of the handsome decorations made the past fortnight have been in red and green, the colors of the emblematic holly. Holly is so admirable this season, and is polished and handled with such care that dinner embellishments with it are highly effective.

Sprays are selected and wired together to form a band from six to eight inches wide. If the table is round the wreath is fitted exactly to it. In the center is placed a low vase filled with holly. Around this is a row of ardisia and solanum; the design is finished with a fringe of poinsettia and camellia leaves.

Dinner arrangements with hybrid roses are simply gorgeous. The table cover is rose-colored satin. On this is laid a cushioning of *Asparagus tenuissimus* in light chains, so that the color of the satin shows through here and there. There is space left for the covers free of this foliage bed. In the center a low, flat basket is concealed, in this are placed long stem roses, Jacqueminots, Beauties, Anna de Diesbach and Magna Charta, very loosely arranged. In the foliage over the table are laid long-stem hybrids, which are distributed as favors after the repast. Sage green satin table covers are being used both for foliage decorations and those made with La France roses, which are now coming of extra size and elegance.

Decidedly the most elegant ornamentation made this week was that made in a Madison avenue mansion, where there is a gold service, including candelabra. The table cover was of gold colored rep silk. A long garland of Marechal Neil roses, very artistically made, was laid diagonally, and like a richly blooming vine, throughout the table. The candelabra were placed at the ends, diagonally opposite where the vines finished. These golden branches were covered with the rich yellow roses. The favors were handied-baskets of yellow Bohemian glass filled with Marechal Neils.

Yellow appears to be very favorite for room ornamentation. Delmonico's ball room was decked last evening with Japanese pouches of all the shades of gold, from that of brass and bronze to canary color. The filling of these pouches was done with cloth of gold chrysanthemums, calendulas and yellow daisies, ferns, ivy and asparagus being the foliage used. An elegant effect at one end was made with a large curtain of asparagus, which was caught up gracefully with a large button formed of calendulas.

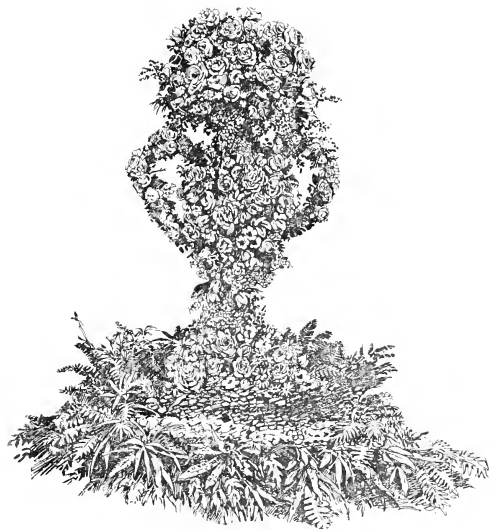
German favors are very handsome and costly. Thorley made sixty-five of these to-day, which were cornucopias of rush-straw work. They were filled with selected hybrids, and tied with sage green ribbon. It requires from two to three yards of ribbon for each of the cornucopias, which are laced about with it, "chained" with it, and a large bow to swing over the arm. Another novel favor is a corn husk, or, apparent ear of corn; where the cob would naturally be a box is introduced. This is filled with damp moss and in it is placed corn flowers, blueets, pink clover and white daisies. The ear of corn is tied with ribbons to match the color of the husk. These corn flower-holders are very fashionable for

gifts. Hand-painted buckets are very fashionable for both souveners and German favors. They are filled with hyacinths, narcissus, daphne and tulips. By the way, I observe a very neat little fashion in Brower's. With every cut-flower collection a bit of *Daphne odorata* is tucked in to give its incomparable scent.

Work baskets of rush straw are very useful and handsome for favors. These are lined with satin, and when filled the inside is first protected with tin foil. But one variety of flowers is put in them; Jacqueminot roses, tulips, nigongette or daisies. Hampers that will hold two bunches of violets are in the shape of champagne baskets. These are lined with violet-colored paper and then with waxed paper, after which the bunches are placed, the cover fastened down with a straw wedge, and the box tied or

Neils, Perles, Sunset, Gloire di Dijon, are loosely tied together with a flaming cluster of Mlle. Capucines at one side. Jacqueminots, Bennetts, Douglas and Dukes are combined with a cluster of scarlet berries, or a poinsettia.

Hanft Bros.' newest funeral design is the richest and most graceful I have ever seen. It is a Grecian urn, very artistically proportioned, and the flowers are so filled in as not to mar any of the most delicate lines. The urn stands four feet high, and the base is four feet in diameter. The entire urn is composed of selected roses, La France, Marechal Neils and the Bride predominating. Maiden-hair ferns are the foliage, excepting on the handles, where rose leaves are the only kind used. The gorgeous bed of roses at the base is starred with clusters of marguerites. The base on which the urn stands is a glorious combination of crotons, ferns and mosses.



GREY'S URN.

strapped like a trunk, with a sash of satin the color of the modest flowers within.

Many hand bouquets have had small clusters of holly and mistletoe in the sashes, and those carried New Year's will have these emblems of the season for the finishing touch, which gives the stroke of sentiment to the arrangement. Tulips are very fashionable in combination with cyripediums in hand bunches, which are made larger than ever before, for receptions and the opera. The blushing Cottage-maid tulip forms two-thirds of the bouquet. Cyripediums and the uncolored sea moss comprise the remainder of the bunch. Combinations of Papa Gontier and Bon Silene roses are very choice for these large hand bouquets. How unlike these flowers are can then be discerned. There is a strong inclination to combine roses of the same tint, but of different shades. For instance, Marechal

These are all growing plants. In a wide band of white carnations among this kaleidoscopic growth here is inscribed in violets, "Farewell."

The waxen orchids are extremely appropriate for funeral decorations, and have been in demand for these occasions by those who spare no expense. A pall of royal purple velvet laid one corner, which swept over the front side of the casket as it stood in the church channel covered with cattleyas, which were sewed on. The pall was caught up by an immense cluster of heliotrope, and there were no other flowers exposed. This was simple and superb. Funeral wreaths are more in demand than other designs. These wreaths are placed on baskets, and are flanked by two palm leaves. A very rich arrangement is a wreath of large white roses, fringed with ferns and lily of the valley. This stands on a table the

top of which it covers. From the center of the wreath rises a basket, which holds another wreath, placed facing like a target. This latter wreath is made of lily of the valley, hyacinths, narcissus, with occasional clusters of *Alençon* and *Trade* large roses spanning the aperture. Each side the basket and secreting it are placed upright a leaf *Cycas revoluta*. Surrounding the design is a large sheaf of wheat.

Very charming and elaborate garnishing is made on evening gowns with natural flowers. White violets formed the entire front of the petticoat of a white tulle frock worn by a debutante last week. Her mother wore a dress of lavender silk, all of the draping of which was caught up with clusters of *Marie Louise* violets. Tulips are as highly effective for dress ornamentation. Tulip buds are altogether the handsomest, and must be laid one way, of course. I think I have stated before that the panels, sashes, plastrons, etc., made with natural flowers should be cut of netting on which the blossoms are tacked. The scarf of lily of the valley for either shaping on the skirt, or across the bodice is one of the loveliest pieces in floral garniture for personal wear. A panel of white tulips is easily made, and is very elegant introduced in the side of the skirt. *Roman* hyacinths are a rich flower for a berthe or bretelles. The berthe is particularly becoming to the figure. On bridal gowns *Cape jasmines* are very stylish. These stud the front of the skirt instead of the application of the pearl passementerie so long favorite.

Sun and Propagation.

"Geyser," in the *FLORIST* of December 15, asks me to give my opinion on the relative merits of shaded and unshaded houses for propagation. I entirely agree with him that propagation is best done as far as possible without shade. We have here both conditions, but our best propagating houses are those in a connected block, each 20 feet wide by 100 feet long, facing east and west, identical with those in use for plant-growing. In these all our propagating is done during the fall and winter months. We give them all the light they will stand, beginning to shade only when the sun is bright (with lath shutters) about from 9 to 10 in the morning and taking them off again at 3 or 4 in the afternoon, regulating the shading, of course, according to the season or the brightness of the day. We now give very little bottom heat, keeping in winter from 65° to 75° in the shade, with 10° lower in the house. For propagating tropical stuff, such as coleus, 10° higher. Great injury is often done to roses, carnations, verbenas, geraniums and plants of that character by rooting the cuttings in too high a temperature. Plants of all these will give a far better account of themselves if rooted in three weeks than when rooted in two. For a somewhat similar reason cuttings rooted in as much light as possible will do better than those rooted in shade. We have one large propagating house facing due north, but we rarely use it for propagating until nearly spring, and then mostly for coleus and other easily grown plants. But when obliged to use that house, as we sometimes have been, we never have had as good results in the propagation of roses, carnations and general bedding plants when rooted in this house facing north as from those propagated in the more light and airy houses facing east and west. In propagating from seeds it is even of more importance

than for cuttings that they be started in unshaded houses. We never under any circumstances use shaded houses in winter in starting seeds. If seeds germinate in even partial shade the constitution of the plant is according to its kind less or more weakened.

Dec. 20, 1886. PETER HENDERSON.

North-Side Propagating Houses.

Mr. Hill's remarks upon the propagation of the rose will probably throw new light upon this subject to some. We often observe people who fancy that when success has been attained by one method, failure would certainly ensue if any other were adopted, and consequently are always moving upon old established lines, and make no attempt to experiment for themselves. Very likely there are persons still of the opinion that silver sand is essential for propagation. So also there may be some who suppose that cuttings will only root successfully in a house with a northern aspect.

While agreeing that rose-cuttings, placed upon a bench where they will receive sunshine, root more freely, and are of a better color than those which are propagated in the shade, still, in my opinion, somewhat undue importance is placed upon the matter of position. If cuttings receive plenty of light, and are not shaded, except from the direct rays of the sun, they will generally be of a good color, and if a genial bottom heat is applied, it will not be long before they are rooted and in a condition for potting. Placed then, upon a bench where sunshine is continually received, no difference will be observed in the cutting rooted upon a northern bench and that upon a southern.

With many, the use of the house with a northern aspect is simply a question of expediency. The bench-room in other houses can be occupied with plants which would not be likely to succeed in the house inclined to the north. Those florists who grow roses by the thousand, and whose object is a trade in these plants, can afford to occupy valuable room for propagation, and are justified in giving the plant every facility through the successive stages of its growth—from the cutting until its disposal to the buyer. Not so with those of our number who grow but a limited quantity of these plants—usually, enough for their own planting, with perhaps a small surplus. With the benches occupied with blooming and other plants, it would not be advisable to remove these and take up their room with cuttings which for all practical purposes will succeed equally well in a house unsuitable for general plant growing. Still, the advantages to be derived from this system of propagation may be greater than in my judgment they are; and it will do none of us harm to consider this subject, and if convinced, to act upon the suggestion made. A. E. W.

North-Side Propagating Houses.

Several writers in the *FLORIST* have lately referred in a deprecating manner to the above, and being the possessor of one of these institutions, and being very much attached to it, I cannot refrain from giving the "wedge," referred to in the last issue of this paper, by "Geyser," a tap on the other end. For if there is any one thing in my establishment of which I am especially proud, and for which I am thankful for being the possessor of, it is my north-side propagating house. And why? Because it does its work so easily and well. No trouble ventilating. No anxiety about cold draughts. No

hurrying from other work, when old Sol shows himself, to shade cuttings with newspapers. No fear at all that my batch of cuttings will not turn out 50, 75, but often over 100 per cent of finely rooted cuttings. And all the labor bestowed upon them since they were put in the bench, a sprinkle occasionally to keep up the right degree of moisture.

With reference to the impairment of the health of the plant by being placed in a house of this kind to be rooted I cannot well see how it can possibly occur. After the cutting is severed from its parent it is a case, so to speak, of suspended animation, and until roots have formed is in a dormant condition, and is incapable of contracting disease, I am referring now to a cutting properly treated as in the north-side propagating house such as a thing as a cutting making several inches of growth before making roots is never heard of if the temperature is kept as it should be, about 50°. Cuttings taken from plants grown in warm houses tempered by immersion in cool water, have not been affected in the slightest degree as far as my experience goes, by the change to the north-side propagating house.

I have propagated *H. P.* roses for a number of years, and have yet to see one plant that showed any trace of disease or impaired vigor. "Geyser" confesses to shading the glass, or covering with cloth. My cuttings have direct light. No shading necessary; which is best? "Geyser's" cuttings undergo a change probably of 15° or 20°. The temperature of mine does not vary over 5°; which is best? There are some cuttings that it would be utterly impossible to root in a southerly-exposed house, without the aid of bell glasses or sashes. The north-side propagating house is a complete bell glass on a large scale. The atmosphere always humid. The ventilator in my house was secured down about Oct. 1, and will remain closed till about the middle of April, when the sun's rays will strike over the top of the shed to which the house is attached, and I, with "Geyser" and others, who do not believe in the north-side propagating-houses, shall have to commence worrying about shading, ventilating, etc., matters that have given me no anxiety at all, during the time most of my propagating has to be done.

Arlington, N. J. CHARLES BIRD.

Queries and Answers.

CAN BONE MEAL, which has been used in hardening crucibles and reduced to bone charcoal, be made of use as a fertilizer?

D. J. S.

I HAVE NOTICED soil-water highly recommended as a plant stimulant. Will some florist who has used it give me his experience with it?

P. F. L.

WHAT varieties of lettuce are the best for winter culture, and what is the most successful method of destroying the green aphides which attack them?

C. W. F.

WHERE STEAM is used for heating, what is the best arrangement for warming water from the tank for watering, using the full pressure with the hose?

A. S. M.

A LADY FLORIST inquires: What length of time is allowed between the time that bulbs, such as tulips, *Romans*, and *narcissus*, are taken from the cellar and put into heat, and the time they are expected to be in bloom? Will some one please answer through the columns of the *FLORIST*?

AZALEAS.—Why do the leaves of small azaleas turn brown at the ends and then drop? I have in a favorable corner some very healthy azaleas from which I propagated the best shoots. These try their best to grow and make good roots, but after they get to a certain size the leaves turn brown and drop at the ends and soon fall. The pots are elaborately drained, and I have tried them in sunshine and shade, in cool places and in warm, without finding that the change made any difference. C.

Reminders and Suggestions.

ROSE ARDIA, through blooming, can be removed, and if kept dry can be stored away under the benches, until wanted for planting in the spring. Then, if the plants are infested with mealy bug, it will be better to burn the tops and use the roots for propagation, thus ensuring clean plants for next winter's work.

Poinsettias should have plenty of light and air, which will tend to increase the depth of color and help to harden the stems, so that they will not be so apt to wilt when cut.

Chorozema varia is one of those plants which are so often consigned, without reason, to obscurity, but which are of great merit, and sure to repay the notice of every florist. It is readily grown, and its bright, orange-red flowers are very acceptable during the early months of the year. A large plant in bloom is a sight not easily forgotten, and, as the plant grows rapidly, it soon attains a considerable size. It can be planted outside in the summer, and when lifted in the fall can be kept with other plants requiring a medium temperature. It is not particular as to soil or treatment, but will amply repay whatever care is bestowed.

Cyclamen should now be showing flower. Be careful in watering, in order that the plants do not get an over-supply, and that the flowers are kept dry; for if water is allowed to remain upon the petals during dull weather, they soon spot and spoil. A. E. W.

ROSES.—Now is a good time to make preparations for a propagating bench for roses, as the rush of the holidays will be over, and a piece of bench somewhere in the house can be spared. In preparing it, clean all the soil out, lay thin strips over the cracks to keep the sand from running through, then get good, sharp, clean sand, and place about two inches thick all over the space to be used; press firm with a piece of flat board; then commence at one end, and put in the cuttings about 20 per cent. more than will actually be required of each sort, so some will not grow as freely as others. Water with a fine rose-pot, as fast as inserted in the sand, and if in a very sunny place, shade with thin paper two or three hours during the middle of the day. The first of February is about the best time to put in the main batch, as cuttings put in then will make better plants, if treated right, than those put into sand in November and December. The ordinary temperature of a rose-house is the best for cuttings. Too high a temperature ruins more rose-cuttings than anything else.

Continue to keep everything clean about the rose-houses, and where plants are growing freely in shallow benches, a little weak manure-water once a week, from this on, will help them; but it is very important to have the soil in a fairly dry state before applying it. One of the best materials for making it is clean, dry

chicken manure; of this, half a gallon to fifty gallons of water, is strong enough. Give it two or three good stirrings, then allow to stand long enough to become clear before using. Fresh cow or sheep manure is also excellent for this same purpose, but more bulk would be required of these. J. N. M.

THE LOTTERY for the benefit of the sufferers by hail, at Paris, realized about 8,000 francs, which was handed over to the National Horticultural Society.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line, seven words each insertion. Cash must accompany order.

WANTED. Assistant to manager of commercial forest establishment. Must be practical man and familiar with office work. Address, with full particulars and references.

WANTED. By a Canadian florist, a smart, active young man, with at least four or five years experience in propagating and growing general stock. Must have experience in propagating roses. Address, R. T. care AM. Florist, Chicago.

WANTED. A man to take charge of the Rose-department in a commercial establishment, one who thoroughly understands growing and propagating. To the right man good wages will be paid and a permanent situation given. Only those who can furnish first class testimonials as to character and ability need apply. Address, P. O. Box 41, Rochester, N. Y.

A RELIABLE party with some cash and a thorough knowledge of the business, can secure an interest in an established forest establishment. Address, G. S. care AM. Florist, Chicago.

WANTED. California Echeveria plants, Address, with size and price, H. GRANT, Penna. avenue, Wilmington, Del.

WANTED TO RENT.—About 800 to 1000 sq. ft., or more of glass in good order, suitable for rose growing, and more than 5 miles from city. Address, "ROSE," care AM. Florist, Chicago.

TO EXCHANGE. A few hundred Tulipose bulbs, in small or large lots, for florists' requests, or Carnations, Roses, etc. Correspondence solicited. Mrs. ANN C. HITCH, Dayton, Ohio.

FOR SALE. Greenhouses, with some land and an established business. Mostly in Carnations and similar for the trade, for both of which there is a regular demand. Stock to be kept up and business continued as usual. Carnations and Saxifraga specialties. THOS. F. SEAL, Knoxville, Pa.

FOR SALE. A nice greenhouse business in a growing western town of 10,000 people, has three railroads, and a large income prospect for the next future, one of which will reach the city next summer. A rapid growth of the city will make during 1887. This is a rare opportunity to the right person, to do and build up a large floral business. All the reason for selling. For particulars, address, FLORIST, P. O. box 41, Pueblo, Col.

FOR SALE. Choice California Pampas Plum, per 100, \$5.00; per 1,000, \$40.00. Address, MISS ISABEL GIBBS, Los Angeles, Cal.

FOR PLANTS. our mailing boxes are the best in the market. Leading florists, gardeners, samples to clients. EDWIN BROS., Kennebec, N. H.

FOR SALE. Rooted cuttings of Coleus and Aechmea, at \$1.00 per 100, \$2.00 per 1,000. Wholesale rooted cuttings for ornamental tropical plants, at \$1.00 per 100, \$2.00 per 1,000. University of Illinois, Champaign, Ill.

2,000 fine bulbs Pearl Tulipose, \$8.00 per 100. Kalina Japan var. and reb. 1 ct. per strong shoot. Ann. Sarracenia, i. e. Gormey Lily, \$8.00 per 100. Arends double var. \$3.00 per 100 shoots. Clematis Godefrida, \$5.00 per 100. Contracts also for 1887.

MRS. J. S. R. THOMSON, Spartanburg, S. C.

THE NEW ROSES.

American Beauty, Bride, Her Majesty, W. F. Bennett, Papa Gontier, Also, good plants of the best leading varieties of Teas, H. Teas, H. Perpetuals, and a general collection of greenhouses and bedding plants at a very low price. Send for prices.

JACOB SCHULZ, 1325 E. BROADWAY, LOUISVILLE, KY.

IMPORTED ROSES, ETC.,

FROM THE BOSKOOP NURSERY ASSOCIATION.

G. H. JOOSTEN, 5 CENTRE ST., NEW YORK, offers FOR IMMEDIATE DELIVERY General Jacquemont, Marcel Sol, Victor Vender, La France, Caprice, Souvenir de Malmaison, Baroness de Rothschild, Marie Baumann, Paul Neyron, Gloire de France, also Clematis Jackmanii. **STATE SORTS AND QUANTITIES WANTED.** Also, 10,000 very strong Champs SPIRÉE JAPONICA. Special Prices by the case.

The Two New Roses OF 1886. THE BRIDE AND HER MAJESTY

Special prices for extra fine plants.

Also good strong plants of all the best leading varieties of Teas, H. Teas and H. Perpetuals, including fine rose-pot plants of the latter from open ground. Write for prices, etc.

J. N. MAY.

SUMMIT, UNION CO. N. J.

Imported H. P. Roses

Worked low upon the Manetti stock, are the best for forcing low plants; by the 100 or 1000 at low rates. Prices to applicants. Address,

W. H. SPOONER,

Jamaica Plain, Boston, Mass. Mention AMERICAN FLORIST.

Novelties in Roses.

NOVELTIES IN GERANIUMS.

The new French Geraniums for 1886 will be ready for shipment September 15. Twelve of the very finest out of this year's new ones:

Glorie of France, Renan, Sergeant Bobillot, Arc en Ciel, etc.

The New Roses embrace some very promising varieties.

Comte de Freigneuse, Mad. David, Camille R. oux, Claire Cochet, and others.

Send for descriptive list and wholesale price list of other choice stock.

HILL & CO., RICHMOND, IND.

JAMES L. & BOYSON, ROSE & GROWER

Calo, Calados, France.

over 1,200 varieties of the very best roses always in stock and guaranteed true to name.

Catalogue with owner's name and date of sending out of each variety post free. Orders are now being booked for spring delivery of the grand new Ten rose, "Comtesse de Fregeneuse," which promises to rival M. Nois; also hybrid perpetual "Clara Cochet," the best sent out of late years.

My Spring Catalogue 1887, of this autumn's new roses, ready January 1.

R U AWARE

HOW LOW THESE PRICES ARE?

Printed Envelopes for Florists

A high quality No. 6, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 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1846, 1848, 1850, 1852, 1854, 1856, 1858, 1860, 1862, 1864, 1866, 1868, 1870, 1872, 1874, 1876, 1878, 1880, 1882, 1884, 1886, 1888, 1890, 1892, 1894, 1896, 1898, 1900, 1902, 1904, 1906, 1908, 1910, 1912, 1914, 1916, 1918, 1920, 1922, 1924, 1926, 1928, 1930, 1932, 1934, 1936, 1938, 1940, 1942, 1944, 1946, 1948, 1950, 1952, 1954, 1956, 1958, 1960, 1962, 1964, 1966, 1968, 1970, 1972, 1974, 1976, 1978, 1980, 1982, 1984, 1986, 1988, 1990, 1992, 1994, 1996, 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, 2018, 2020, 2022, 2024, 2026, 2028, 2030, 2032, 2034, 2036, 2038, 2040, 2042, 2044, 2046, 2048, 2050, 2052, 2054, 2056, 2058, 2060, 2062, 2064, 2066, 2068, 2070, 2072, 2074, 2076, 2078, 2080, 2082, 2084, 2086, 2088, 2090, 2092, 2094, 2096, 2098, 2100, 2102, 2104, 2106, 2108, 2110, 2112, 2114, 2116, 2118, 2120, 2122, 2124, 2126, 2128, 2130, 2132, 2134, 2136, 2138, 2140, 2142, 2144, 2146, 2148, 2150, 2152, 2154, 2156, 2158, 2160, 2162, 2164, 2166, 2168, 2170, 2172, 2174, 2176, 2178, 2180, 2182, 2184, 2186, 2188, 2190, 2192, 2194, 2196, 2198, 2200, 2202, 2204, 2206, 2208, 2210, 2212, 2214, 2216, 2218, 2220, 2222, 2224, 2226, 2228, 2230, 2232, 2234, 2236, 2238, 2240, 2242, 2244, 2246, 2248, 2250, 2252, 2254, 2256, 2258, 2260, 2262, 2264, 2266, 2268, 2270, 2272, 2274, 2276, 2278, 2280, 2282, 2284, 2286, 2288, 2290, 2292, 2294, 2296, 2298, 2300, 2302, 2304, 2306, 2308, 2310, 2312, 2314, 2316, 2318, 2320, 2322, 2324, 2326, 2328, 2330, 2332, 2334, 2336, 2338, 2340, 2342, 2344, 2346, 2348, 2350, 2352, 2354, 2356, 2358, 2360, 2362, 2364, 2366, 2368, 2370, 2372, 2374, 2376, 2378, 2380, 2382, 2384, 2386, 2388, 2390, 2392, 2394, 2396, 2398, 2400, 2402, 2404, 2406, 2408, 2410, 2412, 2414, 2416, 2418, 2420, 2422, 2424, 2426, 2428, 2430, 2432, 2434, 2436, 2438, 2440, 2442, 2444, 2446, 2448, 2450, 2452, 2454, 2456, 2458, 2460, 2462, 2464, 2466, 2468, 2470, 2472, 2474, 2476, 2478, 2480, 2482, 2484, 2486, 2488, 2490, 2492, 2494, 2496, 2498, 2500, 2502, 2504, 2506, 2508, 2510, 2512, 2514, 2516, 2518, 2520, 2522, 2524, 2526, 2528, 2530, 2532, 2534, 2536, 2538, 2540, 2542, 2544, 2546, 2548, 2550, 2552, 2554, 2556, 2558, 2560, 2562, 2564, 2566, 2568, 2570, 2572, 2574, 2576, 2578, 2580, 2582, 2584, 2586, 2588, 2590, 2592, 2594, 2596, 2598, 2600, 2602, 2604, 2606, 2608, 2610, 2612, 2614, 2616, 2618, 2620, 2622, 2624, 2626, 2628, 2630, 2632, 2634, 2636, 2638, 2640, 2642, 2644, 2646, 2648, 2650, 2652, 2654, 2656, 2658, 2660, 2662, 2664, 2666, 2668, 2670, 2672, 2674, 2676, 2678, 2680, 2682, 2684, 2686, 2688, 2690, 2692, 2694, 2696, 2698, 2700, 2702, 2704, 2706, 2708, 2710, 2712, 2714, 2716, 2718, 2720, 2722, 2724, 2726, 2728, 2730, 2732, 2734, 2736, 2738, 2740, 2742, 2744, 2746, 2748, 2750, 2752, 2754, 27

The Cut-Flower Trade.

New York Retail Prices, New Year's.

Roses, each, American Beauty, \$2.00; Magna Charta, \$1.50; Jacques, \$1.00; Bon Silences, 15c; Perles, Niphotos, Souys, Mad Cousins, Papa Gontiers, 25c; Mermetts, La France, Bennetts, 50c; hyacinths, 10 to 15c a spike, cypripediums, 50c each, carnations, 5 to 10c; callas, 10c; lily valley, 15c; tulips, 15 to 20c; violets, 15 to 50 a hundred; pansies, 25 a dozen; mignonette, 75c a dozen.

The New Dispensation—A Criticism.

We are just beginning to find out how ignorant we are. "Our New York Correspondent" has undertaken in a recent communication to aid our dull comprehension, and if we are apt scholars perhaps sometime we may rise to that plane where we shall be able to understand the mysteries of satin and plush table covers, "mode bouquets" and "fashionable make-up."

Some of our country florists have been wont to speak with pride of the skill of their daughters, and of the dainty work which has come from their hands. They will now understand how unsophisticated they have been. They will know better hereafter than to boast of these doubtful family accomplishments, for are they not informed by high authority that they are but "provincial growers whose daughters do the making-up in a clumsy and contrived way?" Those whose only aim heretofore has been to turn out work which would appeal to a refined taste, will stand aghast with amazement at this belated from the center of metropolitan fashion, in which "style" and "novel decorations," "fashionable make-up" and "paying for style" override all considerations of appropriateness or true artistic taste.

Farther along in the same communication we read, "Roses are quite out of style for wedding bunches, although Niphotos and Bride will be more or less ordered by men who do not know one flower from another, and who are served by florists who are too indifferent to suggest a mode bouquet." What a dubious outlook for the introducer of new roses in the future! Here is the "Bride," after scarcely a year's existence commercially, in fact before it is fairly introduced, deliberately consigned in company with our old friend the Niphotos, to the tender mercies of "men who do not know one flower from another."

The white rosebud has been from time immemorial a symbol of youthful purity and loveliness, yet this counts for nothing under this new dispensation. But let us see what remarkable novelty is offered to us to fill the place so long held by the quickly rose. Here we have it, nothing more nor less, than a bunch of "double bouvardia!" And this grand triumph of fashionable art is completed by a bunch of heliotrope or narcissus fastened to one side of it.

"What a very, very pure bouquet
This pure bouquet must be."

Any florist hereafter caught committing the unfashionable act of making a bunch of white rosebuds for a bride to carry is hereby given warning that he is leaving himself liable to the terrible charge of being "too indifferent to suggest a mode bouquet" *a la* bouvardia, with heliotrope in the corner.

It is to be hoped, however, that our esteemed New York contributor, who, by the way, has given us from time to time some very valuable points, has been

drawing somewhat on the imagination, and that our brethren in the trade there, and their fair customers, are not so far gone as some of these communications would lead us to believe.

Let us all pray that the day may be far off when the floral business shall be made a slave to the crazy whims of fashionable eccentricity. Accommodate your seal skins, ribbons, wall papers, houses even, to the latest freak, let mere fashion dictate the cut of your dresses, the height of your bouquets, the color of your hair, but let her keep her hands off the posies. We expect nothing better from the milliner and the dressmaker, but florists should have a better ideal and a higher ambition.

Wm. J. STEWART.

Philadelphia Florist Club.

READ BEFORE THE CLUB, DEC. 11, BY PRESIDENT
ROBERT CRAP.

Mr. President and Gentlemen:—In responding to your invitation to express my ideas as to what should be the policy and aim of our club, I shall not attempt to go much into details, but shall speak in a general way of what I think it should try to do, and of how it may be useful. While its advantages as a means of social intercourse are not to be overlooked, it is mainly to be valued for its opportunities of mental improvement, and as affording its members the advantages of organization in advancing the general interests of the trade.

In a large city like this, there is much horticultural work of a public nature to be done: such as helping to arrange for and conducting exhibitions of plants and flowers; in discussing matters of general interest to the craft, and in carrying out the plans that may be adopted for improving the facilities for conducting business. In a city like this, many of our florists think that there should be a broad-based Philadelphia wholesale market for the sale of plants in spring, and cut flowers in winter—some central place where buyers and sellers could come daily into contact, with convenience and profit to both. Similar questions are continually presenting themselves, which could be discussed at the meetings of this club, and concert of action secured. The rooms of the club should be in a central location, and be made as comfortable and attractive as its means may allow. One or more copies of all the leading horticultural journals in the world should be subscribed for, and we should procure a complete encyclopedia and all the latest and best books on floriculture and kindred subjects, thus enabling our members to keep abreast of the knowledge of the times. The latest plant and seed catalogues, from all parts, should be on its tables, and the walls should be adorned with pictures of plants and flowers, which convey pleasure and instruction at the same time. A powerful microscope, for the examination of fungoid growths, and injurious insects, would be worth more than its cost to the members; in short, the club should procure everything that a majority of its members might determine was necessary or useful, and its funds would permit.

At each monthly meeting an essay on some subject of general interest should be read, and should be followed by a discussion; if anything like general interest is taken in these discussions, they will be instructive and valuable, particularly to the lads and young men just entering the business, and every means should be taken to stimulate our youth to put more thought into their work. Each member should attend the stated meetings regularly, and do all in his power to make

them interesting and useful. The rooms of the club should be open every evening, and, if practicable, in daytime also; whether open or not, the members should have access to them at all times.

This club, as you all know, was called into existence to receive and entertain the delegates to the convention of the Society of American Florists, held in Philadelphia in August last, and it will do well to keep up its friendly relations with that body, which, although only in its infancy, has already made its influence felt in the friendly feelings it has developed, and in the information it has diffused. What a grand thing it would be if clubs like ours could be organized in all the cities and larger towns, for the purpose of acting in conjunction with the national society in advancing the interests of horticulture! The members could discuss questions of national interest, as well as those relating to local affairs, and thereby prepare themselves to take part more intelligently in the proceedings at the annual meetings; which, by the way, are likely to be more largely attended each year. The florists are a hard-working class of men, and these annual gatherings, coming in the vacation time of the year, must be, if properly conducted, more and more appreciated as time rolls on. I hope, gentlemen, that the few ideas I have advanced will be criticized freely, and that the members present will not hesitate to say what they think on the subject, as the more the matter is discussed the better will be the results.

New York.

Evergreen decorations are unusually striking this season, on account of the new and bright tints in vogue.

Superb violets, that bring \$4 a hundred wholesale, are brought in limited quantities by Rich. K. Young, of Norwich, Conn.

Hans Brod, of 5th avenue, has a large wasp's nest picturesquely placed among the evergreens that ornament the front of his store.

The new blush carnation "Fawn," and the daintily pencilled one, "William II. Brower," are among the beauties in pinks creating a sensation here.

John Thorpe is so much improved as to be moving about a little. He will make a trip to New York in a few days and will be welcomed by his hosts of friends.

Mr. Bird cut 2,000 spikes of Spiral mignonette for Christmas use. His crop of late chrysanthemums has been a splendid one. A large ball decoration was made with Golden Dragon last evening.

No time has yet been appointed for the meeting of the New York horticultural society to elect officers. Mr. Thorpe's illness interrupted the regular meeting set down for last Tuesday in December.

Thos. Young, Jr., & Co., are daily receiving one or two hundred of the largest and most magnificent La France roses I have ever seen. These are grown by John Forey, gardener to A. C. Tucker, Esq., of Nyack, N. Y.

A party of seventy-five ladies and gentlemen visited E. D. Sturtevant, Esq., at Bordentown, N. J., Sept. 9, when the Victoria regia was in bloom. The Lotus club, of Philadelphia, and the Natural history society, of Trenton, were among this "little party."

The importation of specimen holly plants in pots, from Holland, by Mr. Bird, who ordered these in large quantities, has received a severe blow by the detention of the shipment on which they were shipped, rough weather having delayed it until too late to use these novelties for Christmas.

THE AMERICAN FLORIST
Subscription \$1.00 a year. To Europe, \$1.25.
Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column \$14.00.
Cash with Order.
No Special Position Guaranteed.
Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.
No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
plants, pertaining to those lines ONLY. Please to
remember that.

Advertisements for Jan. 15th issue must
reach us by Dec. 10th, Jan. 3. Address—

THE AMERICAN FLORIST CO., Chicago.

Catalogues Received.

H. H. Sandford & Co., Thomasville,
Ga. Plants; Oscar H. Will, Bismarck,
Dakota, Seeds and Plants; H. H. Berger,
San Francisco, Japanese Plants; Mrs.
Driscoll, New York, Supplies; Z. De
Forest, Ely & Co., Philadelphia, Seeds,
and Reed & Keller, New York, Wire
Designs.

EASTER Sunday comes on the 10th of
April. Lay your plans for flowers ac-
cordingly.

SUBSCRIBERS, before writing us to ask
when your subscription expires, please
examine the printed address-label on any
number mailed you. The time of expira-
tion is there noted to the right of your
address.

DID YOU find time, or take time to read
our HOLIDAY NUMBER? If so, did you
notice the quality of the engravings and
the matter? And how were they? We
are selling the FLORIST at \$1.00 per year,
just about one-third of its actual value.
We want, now, your renewal, and ought
to have with it two new subscribers.

MESSRS. E. HALL & SON, Clyde, Ohio,
send us a sample bloom of a new gerani-
um, originated and named by them
Gen. J. B. McPherson. Messrs. Hall
state that it is a seedling from Marshall
McMahon. The truss sent is rather
small, but the double flowers are of a
pleasing shade of scarlet, and the leaf is
nicely bronzed.

W. S. ALLEN,

WHOLESALE FLORIST

940 Broadway, N. Y.

Price Lists mailed to applicants.

JOHN J. PERKINS,

Wholesale and Commission

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(Telephone No. 674, 39th St.) New York
Branch, 38 S. 16th St., Phila., Pa.
Greenhouses, Cresskill, N. J.

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No. 11 West 27th Street,
Near Broadway, NEW YORK.

Consignees of the principal growers about New York.
Lilies of the Valley and Lilies at all times.

THEO. ROEHRS, WHOLESALE DEALER IN CUT FLOWERS

No. 153 West 31st Street,
NEW YORK.

Wholesale Markets.

Cut Flowers.

HOLIDAY PRICES.

NEW YORK, Dec. 31.	
Roses—	Per 100
“ Bon Silenes,	\$ 8.00 to 10.00
“ Perles, Niphetos, Souys	12.00
“ Mornets, Cooks, Bennets,	10.00
“ Olean	20.00
“ Dukes	20.00
“ La France	25.00 to 35.00
“ Rindes	20.00
“ Ann Beauty	100.00
“ Jacques	20.00
“ Hards	20.00 to 1.00
“ Papa Gontiers	20.00
“ Magnolia	20.00
“ Smilax	20.00
“ Carnations, long	2.00
“ Carnations, short	1.00
“ Hyacinths, narcissus	1.00
“ Lily valley	\$ 8.00 to 10.00
“ Violets	2.00 to 4.00
“ Pansies	20.00
“ Tulips	5.00

CHICAGO, Dec. 31.	
Roses, Perles, Niphetos	12.00 to 15.00
“ Mornets	20.00
“ La France	20.00 to 25.00
“ Bon Silenes	10.00
“ Saltrons	20.00
“ Dukes	20.00
“ Bennets	20.00
“ Jacques, source	5.00
“ Carnations, long	2.00
“ short	1.00
“ Violets	1.50
“ Ranunc. narcissus	1.50
“ Bonaria	1.50
“ Stroma	1.00
“ Callas	25.00
“ Lily of valley	8.00
“ Smilax	20.00
“ Adiantum	2.00 to 4.00
“ Pansies	1.00 to 2.00
“ Pansietras	5.00 to 10.00
“ Heliotrope	1.00

PHILADELPHIA, Dec. 31.	
Roses, Teas,	8.00
“ Perles, Niphetos	12.00 to 15.00
“ Mornets	18.00 to 20.00
“ La France	20.00 to 25.00
“ Bennets	25.00
“ Ann Beauty	10.00 to 20.00
“ Valley, Bonans and narcissus	5.00
“ Smilax	2.00 to 4.00
“ Carnations	2.00 to 4.00
“ Bonaria	2.00 to 4.00
“ Camellias	10.00 to 12.00

BOSTON, Dec. 31.	
Roses, Teas,	8.00
“ Perles	12.00 to 15.00
“ Niphetos	18.00 to 20.00
“ Mornets	25.00
“ Bennets	25.00 to 35.00
“ La France	25.00 to 35.00
“ Carnations	2.00 to 4.00
“ Bonaria	2.00 to 4.00
“ Lily valley	8.00
“ Adiantum	2.00
“ Narcissus	6.00
“ Hyacinths	6.00
“ Steven	1.50
“ Violets	2.00
“ Callas	25.00
“ Pansies	1.00
“ Pansietras	5.00
“ Adiantums	1.50
“ Holly, Yule, holly, laurel and all greens abundant and in good demand.	

WM. J. STEWART,

— Wholesale Dealer in —

CUT FLOWERS

We offer as specialties for December,

Fine Roses, Lily of the Valley, Roman
Hyacinths, Violets, Adiantums,
Japanese Chrysanthemums and
Asparagus Plumosa.

PRICE LISTS ON APPLICATION.

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WELCH BROS.,

WHOLESALE FLORISTS.

165 Tremont Street, BOSTON, MASS.

We make a specialty of shipping choice roses and
other flowers, carefully packed, to all points in
Western and Middle States.

Return Telegram is sent immediately when it
is impossible to fill your order.

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EXTENSIVE ROSE GROWERS.

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Telegraphic orders will receive prompt attention
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Greenhouses at Forest Glen, Cook County, Ill.

THOS. YOUNG, JR., & CO.

Wholesale

FLORISTS

INCORPORATED 1886.

23 West 23d Street,

NEW YORK.

GEO. MUILEN.

17 Chapman place, nr. Parker House, Boston, Mass

WHOLESALE DEALERS IN

CUT FLOWERS AND FLORISTS' SUPPLIES.

Wire, Designs, Stemming Wire, Tin Foil, Inner

Wires, Bleached Wheat, Bunnies, Lilies,

Flat and Standing Sheaves, all sizes and

ready in stock and sold at lowest

wholesale rates.

Orders by Mail, Telephone, Telegram or Express

PROMPTLY FILLED.

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Only wholesale store in the U. S. open

day and night. Code, shipping instructions

and all like particulars supplied on

application. If you buy flowers write me.

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WHOLESALE & FLORISTS

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Location midway between East and West. In Rail-

road conducting here. Large Supplies

Roses a Specialty. Improved Methods

Sent for prices and particulars

HAMMOND & HUNTER,

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CHAS. E. FENNOCK,

Wholesale Dealer in Cut Flowers

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N. F. MCCARTHY & CO.

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Auction Sales of plants, spring and fall. Write

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LaRoche & Stahl,

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All orders shipped c. o. d., unless otherwise agreed

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The choicest cut flowers at lowest market rates

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Code when ordering by telegraph. For prices, etc.,

Address.

J. L. DILLON, BLOOMSBURG, PA.

The Seed Trade.

A. S. FRESHER & Co., seed-men, of Grand Island, Neb., will move into a handsome new store on Jan. 1.

WM. H. MAPLE issues one of the finest catalogues in the trade, with a business-like cover. If it does not make sales no other catalogue will.

S. V. HAINES & Co's seed catalogue, their first, is out. It is quite a notable departure from any of the others. They will issue a mammoth edition.

MESSRS. CLARENCE W. MOORE and Geo. E. Rhidemeyer do not open their floral and seed store, as they expected. Mr. Moore is now engaged with Messrs. Johnson & Stokes, Philadelphia.

W. ATLEE BURPEE & Co. are out with a fine catalogue, as usual, introducing many sterling novelties. Push, pluck, perseverance and enterprise is certainly not lacking with the Quaker City seed-men.

MR. HERBERT JOHNSON, of the well-known Philadelphia firm of Johnson & Stokes, took unto himself a partner for life, on the 16th ult. This reduces the number of handsome Philadelphia bachelor seed merchants to four, viz.: the majestic Mr. Burpee, matchless Mr. Dreer, mannerly Mr. Stokes and merry Mr. Ely. Whose turn next?

A SUGGESTION.—We have two wild flowers, namely: *Cypripedium spectabile* and *Trillium grandiflorum*, which are extremely beautiful, showy and lasting, and which, in some parts of the northern states and Canada, grow wild in great abundance. Both take kindly to artificial cultivation, grow freely in pots or boxes in the greenhouses, and can be had in full bloom at Easter with very little forcing. Can't some florist, who lives near where these plants grow wild in large quantity, try a lot? Surely he will have more for his pains than those of us who dig up *Viola cucullata* for forcing. The flowers of this *cypripedium* are considered more beautiful than those of *C. Morganianum*, *C. spicerianum*, or any other exotic species or hybrid; and there is nothing like the *trillium* in the market.

W. F.

As a LAWN bedding plant, a brilliant future is predicted for the double scarlet zinnia, when well grown, of a rich shade of scarlet, blooming from June until frost; each bloom lasting five or six weeks, and each plant bearing fifty or more blooms at a time. It has few if any

SEEDS.

1000 lbs Long Red Mangel Wurzel.

1000 lbs German Sugar Beet.

Parties wishing to purchase the whole or part of the above will please write for quotations.

KENDALL & WHITNEY, Portland Me.

SEEDSMEN

Will do well to remember

THE FLORIST

IN ARRANGING THEIR

SPRING ADVERTISING

We reach 4,000 florists and gardeners, whose annual cash payments for seeds are very large.

rivals among the annuals. It can be easily transplanted at any time, and should not be associated with the much-despised ordinary zinnia. One specimen plant brought over \$5.00, and the customers were much pleased, showing that quality pays, even in a zinnia. E. A.

GREENHOUSE HEATING.

BY A. H. POWELL.

Explains fully all the best systems of heating greenhouses, by both hot water and low-pressure steam. Tells you the pumps to consider in selecting an apparatus. How to adjust same to various localities, gives the results of the latest scientific experiments. Shows how to compute the number of feet of pipe required for a given space. Draft and other important matters. It is highly recommended by Mr. John Thorpe and others. Postpaid, 75c.

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AMERICAN FLORIST,
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OUR CLUB LIST.

THE AMERICAN FLORIST and the GARDENERS' MONTHLY one year for \$2.50.

THE AMERICAN FLORIST and the HORTICULTURAL ART JOURNAL one year for \$3.50.

THE AMERICAN FLORIST and the BOTANICAL GAZETTE one year for \$2.75.

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THE AMERICAN FLORIST Co., Chicago.



Mention American Florist.

TRY DREER'S
GARDEN SEEDS
Plants, Bulbs, and
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best at the lowest prices.
TRADE LIST issued
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VAN NAMEN BROS.,
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Growers and Importers of
RELIABLE SEEDS
For the Florist, Gardener and Farmer.
WHOLESALE ONLY
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SOLE AGENTS FOR U. S.

BURPEE'S

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Will be sent FREE to all who write for it. It is a Handsome Book of 128 pages, with hundreds of illustrations. Three colored Plates, and tells all about THE BEST Garden, Farm and Flower Yearly. It describes RARE AND VALUABLE Bulbs, Plants, Thoroughbred Stock and Fancy Flowers, and gives a list of real value, which cannot be obtained elsewhere. Send postal for the most complete Catalogue published to

W. ATLEE BURPEE & CO., PHILADELPHIA, PA.

MARKET GARDENERS BUY NORTHERN GROWN SEEDS. Get our Wholesale list of Warranted Northern Seeds before buying else where or at any pay you. **JOHN A. SALZER,** Seed Grower, La Crosse Wis.

ESTABLISHED 1867.

WILLIAM R. BISHOP,

SEEDSMAN,

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Crops of 1886 ready for delivery Dec. 1. Prices as low as reliable stock can be furnished. We have 300,000 2-year old Conover's Colossal Asparagus Roots to offer. Write for quotations.

Foot of Main St. Burlington, N. J.

ALBERT DICKINSON,
Dealer in Timothy, Clover, Flax, Hungarian, Miel, Red Top, Blue Grass, Lacy Grass, Orchard Grass, Bird Seeds, &c.
115, 117 & 119 Kinzie St. **POP CORN.**
Warehouses: 104, 106, 108 & 110 Michigan St. OFFICE, 16 N. KINZIE ST.
Mention American Florist. 138, 200, 202 & 204 Market St. **CHICAGO, ILL.**

FOR THE SPRING CATALOGUES.
The makers or agents of the following goods desire them inserted in all the forthcoming Seed Catalogues, and will be glad to supply free electrolytes (any size) and descriptive matter. Write them for terms, etc.

Implements and Supplies.

HALES' PERFECT MOLE TRAP.

H. W. HALES,

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SEED BAGS AND ENVELOPES.

G. J. MOFFAT,

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Seed Specialties.

NORTHERN GROWN FARM SEEDS.

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GARDEN, FIELD AND FLOWER SEEDS.

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GLADIOLI, and the most complete list of bulbs for retail sales offered.

V. H. HALLOCK, SON & THORPE.

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For Flower and Vegetable Seeds,

CLARK BROTHERS, Manufacturers, 61 Ann St. N. Y.

Over 6,000,000 PEOPLE USE FERRY'S SEEDS

D. M. FERRY & CO. are admitted to be the LARGEST SEEDSMEN in the world.

D. M. FERRY & CO'S Illustrated, Best, Original & Priced Seed Annual

For 1887 will be mailed FREE to all applicants, and to last season's customers without ordering it.

Available to all, Every person using Garden, Field or Flower Seeds should send for it.

Address **D. M. FERRY & CO.** Detroit, Mich.

These Seeds are so good, that they are used by all.

Illustration of several seed bags and a seed box.

Hot Water Circulation.

BY LOTHROP WELCH.

It is impossible to read Mr. Currie's interesting article without a feeling of regret that there are not more florists willing to spend a little time and thought upon these questions of greenhouse economy. Instead of trying to keep prices up, which cannot be done, why not try to reduce cost of production, which can be done? Mr. Currie's plants will not cost him so much now as they did before he made the change he speaks of, and he has made a distinct step in advance.

Does any florist in the land know exactly what a hundred plants or a hundred flowers have cost him? There has got to be some pretty close figuring on these questions before many years.

While Mr. Currie has evidently hit upon the best remedy for the state of affairs he has described, I don't feel quite sure that he has hit upon the cause of the trouble. Water will act very much like air in similar circumstances. If two flues approach each other from opposite directions, and enter a common flue at right angles to them, there will probably be trouble with one of the flues; a damper will be necessary in the strongest one to equalize the draft. But if these two flues turn and run side by side for a short distance before entering the common flue, there will be no trouble, and the strongest one, instead of opposing the weakest, will help it. It would probably be the same with water.

If two flow-pipes, approaching from opposite directions, should enter a common return-pipe, at right angles to them, through a "T," the very thing that Mr. Currie describes might easily happen, and it would happen just as he states it. When the fire was first started up, the difference in pressure between the two flow-pipes would be so slight that the circulation would not be interfered with; but as the fire increased, that difference would become greater and greater, and finally the strongest current would entirely cut off the weakest. As the fire decreased again, the difference in pressure would decrease, and in due time the weakest current would start up again. A very small difference would suffice to produce this effect, the entire motive power in a large system of circulation probably not exceeding one or two ounces of pressure.

One remedy in this case would have been to turn the pipes through elbows, and run them side by side for a short distance before entering the return pipe. But Mr. Currie's plan was much the best, besides furnishing another argument in favor of the down-hill system. It is possible that the rotary motion of the water in pipes, as explained by Mr. Currie, may account for the difference between theory and practice in the laying of pipes.

It can be mathematically demonstrated that horizontal pipes ought to give better results than the down-hill system, but they don't. There is something going on within the pipes that the figures have not yet got hold of. Anyone who has watched a river in a freshet, knows how eccentrically the water moves, especially at the banks, where it is as likely to run up stream as down, all these eddies and contrary movements are the direct result of mechanical pressure. The movements in the water-pipes are also due to mechanical pressure, and we are justified in expecting some such results as we witness in the streams.

Framingham, Mass.

Ed. JANSEN,
124 West Nineteenth Street, NEW YORK.
Manufacturer, Importer and Dealer in

STRAW WILLOW BASKETS WICKER GILT

WIRE FRAMES,
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BOUQUET PAPERS, ETC., ETC.

DOVES,
TIN FOIL,
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MANUFACTURERS OF ALL KINDS OF
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Send for New Catalogue. Mention American Florist



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**STEREOTYPES OF THE
New Cut Flower Label,**

As shown in No. 3 of this paper, prepaid by registered mail, each \$1.25. AMERICAN FLORIST CO., Chicago.

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Ye Narcissus or Daffodil Flowere,
Containing, herbs, historic and Culture, etc., with a Complete List of all the Species and Varieties known. A most complete and beautiful work. Price, 10 pages. Illustrated with Wood Engravings. London, A. D. 1884. Price, 10.

HAND-BOOK OF PLANTS.

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A well-known Standard Dictionary of Plants; 400 pages. Cloth, postpaid, 8.

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Latest edition with corrections. The most complete list published of florists and nurserymen. Price, 8.

How to Heat a Greenhouse with Water.

An illustrated treatise on the above subject, which every Florist should possess, as it gives full instructions how to set the boiler, arrange the pipes, radiators, metal boxes, and much other desirable information. In fact, any one by following its directions can pipe their own houses without the assistance of a plumber or high-priced labor. Price 10.

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Fresh Stocks to arrive soon.

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Gardeners and the trade generally

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Early Spring Vegetables & Flowers,

Also Early and Prime Tobacco Bed Plants.
Farmers, Gardeners and Florists use the
Patent Protecting Cloth, originated and pre-
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Beds has no equal. Protects from frost,
promotes hardy and rapid growth, does not
shrink or decay rapidly. Widely known and
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per yard—36 inches wide. Send for Circulars. Sam-
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96 South St., New York.

100,000 CUT FERNS.

These Ferns are of a beau-
tiful dark green
color and will
keep for sev-
eral weeks. They
are used for
bouquet work,
filling flower
baskets, etc.,
and are preferred by many to Stylax, \$1.50 per thou-
sand Ferns. Also Bouquet green, at \$2 per bush, and
Bouquet green Wreathing, both flat and round, from
1 to 10 cents per yard.

L. B. BRAGUE, Hipsdale, Mass.

Benjamin Rimbaud, Horticulturist.

Quartier du Temple, Toulon, var. France.

Specialty of early White Roman Hyacinths, Blue
Roman Hyacinths, Pale Rose Hyacinths, Paper
White Narcissus, Roman Narcissus, Anemones
Pulgers, Gladiolus Colviti Alba, the Bride, Lilium
Candidum, Anaryllis Vittata and Grayveina, etc., etc.
Price list on application. Wholesale only.

WIRE DESIGNS.

FREE, FREE, Griffith's Mammoth New Cata-
logue ready by Dec. 20; over 250 Engravings. Send
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J. GRIFFITH,

303 Main St., Cincinnati, Ohio.

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FLORISTS, SEEDSMEN AND NURSERYMEN

Should all have our catalogue. It contains goods that all
need. If you have not received a copy of our last (De-
cember) issue send for one, with some evidence
that you are engaged in the trade, as we never
place this list into the hands of amateurs.

NO. 2 TUBEROSE BULBS,

3 UP TO 4 INCHES IN CIRCUMFERENCE

We Fully Believe 85 Per Cent. will Bloom
Pearl or Tall Double \$8.00 per 1,000. Variegated
Foliage Tuberoses \$5.00 per 100. Single Flowered
PURE STOCK, \$2.50 per 100.

Florists' Bulbs, Seeds and Plants

ALWAYS IN STOCK.

ADDRESS,

V. H. HALLOCK, Son & Thorpe,
EAST HINSDALE, NEW YORK.



We have a quantity of the following
Bulbs which we offer at the low
price annexed.



Hyacinths, Blue Roman,
\$3.00 per 1,000.
Hyacinths, Double Rose,
\$2.00 per 1,000.
Narcissus, Paper White,
\$3.00 per 1,000.
Narcissus, Double Roman,
\$3.00 per 1,000.
Narcissus, Trumpet
Major, true, \$25.00 per
1,000.
Lilium Harris, \$8.00 and
\$10.00 per 100.

Special prices on
other bulbs on
application.

MICHEL PLANT AND SEED CO.,
718 Olive St., ST. LOUIS, MO.

Rooted Cuttings of Carnations.

Free lists for the trade will be sent in January
Carnation Florists and Stylax supplied as used
THOS. F. SEAL
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FOR

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OR

A. VIRGIE, P. O. Box 319, New York City.

Mention American Florist.

DUTCH BULBS

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Hillegom, near Haarlem, Holland.

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DUTCH BULBS.

HYACINTHS, TULIPS, CROCUS,
NARCISSUS, LILIES, ETC.

Intending purchasers, before ordering

Bulbs, write us for a Catalogue.

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WHOLESALE DEALER IN -

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For the Florist
Market, garden-
er and Farmer.

Requisites

Such as Baskets, Im-
mortelles, Grasses,
Mosses, Bouquet Pa-
pers, Pampas,
Plumes, etc.

Bulbs

For the Green-
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22 Dey Street, - - - NEW YORK.

CHOICEST FLOWER SEEDS

FOR FLORISTS' USE.

Wholesale List for 1887 Now Ready,

and Mailed Free to the Trade on Application.

WE SHUN NO EXPENSE to obtain the best and most
reliable strains, and we are not afraid to pay a good price for a good strain; as such, Florists
may expect to be well served when they send their orders to us and to obtain their money's
worth, even if once in a while our quotations appear high. When properly treated our Seeds
will give satisfaction to every one. ADDRESS,

AUGUST RÖLKER & SONS,

44 DEY STREET OR P. O. BOX 800, - - NEW YORK.

The Heating Question.

The article by Mr. Lothrop Wright, entitled "A New Departure in Water Heating," was read with much interest by me, and no doubt by many other florists. This question of the heating of our greenhouses is one of essential importance to us all. How shall we obtain the greatest heat in the most economical manner? The question is not a new one, for it has been discussed by the gardening world for years.

With the advent of each winter, boilers of new and varied design are offered for sale, and each one is claimed by the maker to be superior to all others, in the saving of fuel. In this matter of superior economy, however, there seems to be but little appreciable difference, and of all the boilers advertised from time to time, we do not know of one of which it can be fully proven, that because of its construction much less fuel is used.

The statement in the article referred to, that of ten tons of coal consumed, seven are wasted, is certainly a subject for much careful consideration. The assertion, at first, seems almost incredible, but if we are inclined to doubt its correctness, it can be verified, in a great measure, by placing our hands at the top of the greenhouse chimney upon a cold day, and observing the great quantity of heat which passes off in the air. This same fact can be noticed, if the fires have to be forced to any great extent, no matter what boiler we use. The time must soon come when the attention of scientific men will be specially directed to this subject, and some efficient means devised to counteract this enormous waste. We florists form but a small part of the community affected, and when we remember the factories, foundries, locomotives, etc., where the consumption of coal is immense, we wonder that in this age of progress these conditions have not been changed long before this.

A few years ago, there was an account in the New York *Herald* of a boiler which was to be placed in the Equitable building of that city. It was so planned that no smoke was to be allowed to pass into the atmosphere, but, with the gases, all were to be thoroughly consumed within the boiler. It looked as though this was certainly a commencement in the right direction; but as there has been no report, by my knowledge, of anything further being done with this idea, and no account of other buildings heated by a similar boiler, it has either proved a failure or not of sufficient merit to warrant its extension.

It may be that the style of boiler advocated by Mr. Wright, is the herald of a better system of boiler construction. It certainly seems feasible, and the experiments described were interesting, and apparently conclusive. Therefore, if any of us need a new boiler, or boilers, it would not be amiss to adopt this idea in a practical way.

Though considerable fuel can be saved by improvements in construction, we can secure a still greater economy by having larger boilers than are absolutely needed. How many mistakes have been made, and are continually made in this matter? As but few florists can command a large capital when commencing business, they usually erect their houses with the smallest possible expenditure, and one of the items which is usually reduced to the minimum is the expense of the heating apparatus. The boiler generally used is just about able to heat a sufficient number of pipes to keep the houses at a proper temperature in the severest weather,

but this can only be done by having full draught on the fire, and very often, when an exceptionally cold night occurs, the desired temperature is barely maintained by extra exertions on the part of the fireman.

Those firms which are most successful in heating dwellings with steam, make it a point to so adapt the boiler to the amount of radiating surface to be heated, that the ash-pit door has only occasionally to be open, and not only does this keep closed, but by an automatic arrangement a damper in the chimney is shut at the same time. This method insures a continual slow combustion, and a great saving of coal is effected.

In the heating of greenhouses the same idea may be put into practice. It is true that in the hot-water system no automatic arrangement for closing door and damper can be easily adopted, but a sufficiently large boiler, or boilers, can be used, so as to always insure a slowly-burning fire. If any of the fraternity are troubled, during cold weather, with an insufficiency of heat, let them not be deterred by expense, but at once obtain more boiler-capacity, and they will be astonished at the saving of coal that will result.

According to my view, the size of the boiler and the number of pipes are of more importance as regards economy of fuel than the particular shape of boiler. For instance, if a house that requires 1,000 feet of pipe to keep the temperature at 60°, in zero weather, should have, instead of a boiler just sufficient to heat that quantity of pipe, one large enough to supply 1,500 feet, there would be sufficient coal saved during the first winter to pay for the extra expense of boiler, besides making the fireman's duties much lighter. A. E. W.

To the Trade.

"We wish you a happy and prosperous New Year!" We wish you to materially increase your spring sales by offering your customers varieties of seeds, plants and bulbs that may be procured at short notice in quantities to suit the demand. Some of which may be sent by mail. We offer below specialties that we grow in large lots, and carry a full line, until late in the season. Catalogue them and we shall take care to give you satisfaction in every way. We note the most important.

BULBS. Tuberous Begonias, Fancy Calliopsis, Gloxinas, Fritillaries and spotted varieties, Lilium Auratum, Fritillaries, Indulias, Achimenes, Anemone japonica, Anemone Helianthus, Gladioli, Nigella, Tigrids and Cameraria.

FERNS. Adiantums, Pteris, Aspleniums, Myrsine, Cyrtas, Aspleniums of all sorts and many other varieties.

PALMS. Arecifoliosus, Rubra, Versicolor, Cocco, Medullaria, and palm canes, Chamaejasme, Cyrtas, Kentias, Neofortia, Latanias, and other palms.

ROSES. Bennett, Beauty, Bride, Majesty, Dym, and Goutier, Confess, Englemore, and all the leading hardy and bedding varieties.

HARDY CLIMBERS. Ampelopsis, Vitis, Clematis, Aristoclia, Honeysuckles, Ives and Wisteria.

Double Petunias, Alternantheras, Coleus, Geraniums, Latanias, Verbenas, Phloxes, Carnations and all soft-wooded plants.

Our stock was never in better shape and to prove it, send a trial order.

Whoever sends a new list will be mailed early in January, it is not received.

HENRY A. DREER,
PHILADELPHIA.



42¢ ALSO

Prices reduced to suit the times. Correspondence solicited. Catalogue Free. 21 Greenhouses. THE STORRS & HARRISON CO. Painesville, Lake Co. Ohio

A SILVER MEDAL

and three First-Class Certificates were awarded our new

SEEDLING CHRYSANTHEMUMS by the Massachusetts Horticultural Society, Nov. 12, 1887. Send for descriptive circular.

EDWIN FAWCETT & SON,
Newton Highlands, Mass.

NEW CARNATION

"ANNA WEBB"
One of my seedlings. Received Certificate of merit from the Massachusetts Horticultural Society, Nov. 12, 1887. Deep crimson, winter-blooming Carnation yet produced. Becoming very popular in Boston. Small dormant plants now ready. Price \$1.50 per dozen, \$2.00 per hundred.

SEWALL FISHER, Florist,
FRAMINGHAM, MASS.

RHODODENDRONS

Being the representatives in the U. S. for Messrs.

Jno. Watterer & Sons,

The great English Rhododendron growers, we are prepared to furnish Rhododendrons of all sizes and in any quantity at prices lower than those now offered in this country. Orders now solicited for spring delivery. Prices on application.

B. A. ELLIOTT CO. Pittsburgh, Pa.

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DRY FOR DYEING

100-lb. Sacks for \$5. Being very dry this price is very low.

J. C. VAUGHAN,
42 LA SALLE ST. CHICAGO.

Per hundred.
Double white Primulas, 5-in, 8000, 4-in, \$15.00
Vines, 4-in, 2000, 3-in, 2000, 2-in, 2000, 1-in, 2000
Geranium double and single from 2000, 3000
Roses Bon Silence from 4-in pots, 5000
English Ives, strong bushes, 5000
Cineraria recutata, 4-in, pots, 2000
Pent. Tuberose Bulbs (fine blooming bulbs), \$2.00
(Samples of Tuberose bulbs by mail for five stamps)
Anemones, C. R. REINOLDS & CO.,
39, 5th Avenue, PITTSBURGH, PA.

J. W. DUDLEY & SON,
PARKERSBURG, W. VA.

Orders looked for the following plants for November delivery.
Colors, the latest and best varieties, per 100, \$2.50.
Verbenas in good varieties, including "Henderson's" mammoth strain, \$2.00 per hundred. Geraniums in good variety, \$2.00 per hundred. Rose Geraniums, \$2.00 per hundred. Heliotropes, \$2.00 per hundred. Begonia Metallica, \$2.00 per hundred.

Plants for the Trade

C. Mermont, Cereus, Cactus, Adam, Mad. Camille, Compt de La Barthe, Apocynus, La France, M. Noel, Mad. Bravy, Gerard, Delonias, 84 per 100. Verbenas in 12 varieties, \$2.00 per 100. Smilax, 2-inch pots, 8.50 per 100. Begonias, Rubra Glaucophylla, 4-in pots, 84 per 100. Clematis, Rose Ger. Heliotrope, 82 per 100. Cist. only.

GEO. THOMPSON & SONS,

261 West Jefferson St. - Louisville, Ky.

CHRYSANTHEMUMS.

Finest collection in the West
100 named varieties.

Mostly new sorts, \$3.00 per 100.

From 25 in. pots.
Chrysanthemum catalogue ready Jan. 1, 1887.
Send for it. Cut Chrysanthemums, very cheap.

H. L. PHELPS, Florist,
Springfield Illinois.

FRUIT AND ORNAMENTAL TREES
SMALL FRUITS, BULBS, SHRUBS AND ROSES.
SPECIAL ATTENTION IS CALLED TO OUR REMARKABLY FINE STOCK OF
STANDARD AND DWARF PEARS
Including such kinds as Niagara, Jessica, Empire State, Willis, Francis B. 33d Year. 600 ACRES.
GRAPE VINES
Prices reduced to suit the times. Correspondence solicited. Catalogue Free. 21 Greenhouses. THE STORRS & HARRISON CO. Painesville, Lake Co. Ohio

ESTABLISHED 1854.

ORCHIDS

LARGEST STOCK IN AMERICA.

Enclose 3-cent stamp for our new catalogue, containing "Practical Hints on growing the 'Queen of Flowers.'" Over 5,000 fine plants to choose from.

BRACKENRIDGE & CO.

Successors to

A. BRACKENRIDGE,

ROSEBANK NURSERIES,

Govanstown, Md., Baltimore Co.

CHRYSA NTHEMUMS.

I shall have a fine stock of young plants ready for shipment about Jan. 15.

300 of the best new and old Varieties. Write for prices.

W. W. COLES,

Del. Co. Landsdowne, Pa.

NEW CHRYSA NTHEMUMS.

JOHN H. HUGHES, Sr., Price, Penn. Hort. Society, and Silver Medal, 1886. Judges' Report.

"J. M. Hughes is the finest of its class yet introduced and in the estimation of the Judges deserving of the highest premium the society can award." In color it is a beautiful silvery pink. Also the following magnificent varieties, Miss Clara Harris, Robert, Craik, Alfred, Warner, (these three took first prize as seedlings in Philadelphia). The following are equally as fine, Satsum, Mrs. R. S. Mason, Mrs. John Wannaker, Thomas Cartledge, William Joyce, Robert Crawford and Puritan.

I have entire control of these varieties up to the 1st of March, 1887, when they will be distributed. They were raised by Mr. W. K. Harris of Darby Road from whom I purchased them and can be traced to their origin.

H. WATERER, Importer of plants and seeds, 56 North 38th Street, Philadelphia. Supply very limited, to insure getting plants by March next, order without delay. Price \$1.00 each, less usual discount to the trade.

NEW ASTERS.

Beautiful New and Striking Variety, "PEARL." In two colors. Pure White and Bright Rose.

Each color per pkt., 25 cts., per 1,000 seeds \$1.50. Pot plants of the above, in full bloom, were exhibited by Mr. Zirngiebel at the Florists Convention in Philadelphia last season, and were greatly admired by the members present. **WE HAVE OBTAINED HIS ENTIRE STOCK OF SEEDS**, and offer it at the above low price.

Florists' Seeds a Specialty.

<i>Aster</i> , Zirngiebel's Double Pure White	per 100	4.00
<i>Boston Florists' Double Pure White</i>	per 100	4.00
<i>Purity</i> , Zirngiebel's Improved Giant	per 100	12.00
<i>Stock</i> , Boston Florists' Double White	per 100	5.00
<i>Half-hedge</i> , our own growing from Chater's Prize	per 100	1.50
<i>Chatter's Prize</i>	per 100	1.50
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containing choice strains of Florists' flowers, and a fine assortment of Hardy Perennial flower seeds.

SCHLEGEL & FOTTLER.

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Carnation -:- Florets,

By the hundred, in regular supply; can be shipped once, twice, three times per week, or daily; of **Buttercup**, **Century**, **Grace Wilder**, and **Chatter Prize**.

Portion on long stems at \$1.25 per 100.

CHAS. S. STARR.

Carnation Pink and Tuberose Grouer,

AVONDALE, CHESTER CO., PA.

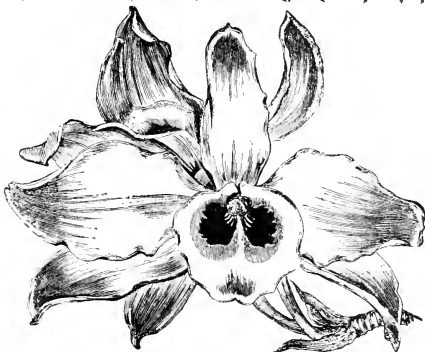
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PANSIES ONLY! The grandest collection ever offered, including ALL the latest NOVELTIES. Our Seeds are warranted to be **PINK**, **PURPLE** and strictly **FIRST CLASS**. Send for new Circular and Special Price List to the undersigned.

ALBERT RENZ, Douglasston, N. Y.

Mention American Florist.

ORCHIDS, PALMS AND RARE PLANTS



Cut Orchid Blooms for Florists at Wholesale.

\$10.00, \$15.00, \$20.00 and \$25.00 lots can safely be shipped any distance in good order.

Siebrecht & Wadley, 409 Fifth Ave., New York.

Send for Price List of Orchid Blooms.

Regular Shipments made every month from Mexico, Guatemala, Brazil, Columbia and Venezuela to U. S. A. and Europe.

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CITY OF MEXICO.

Largest Stock of Orchids in America.

PRICES FREE OF ANY CHARGES IN NEW YORK.

SMILAX A SPECIALTY. Strong plants and good Smilax ready to cut at all times. C. THOMPSON, ADAMS, Wholesale Florist, W. Medway, Mass.

Winter : Flowering : Plants

Roses, Carnations, Bonvardias, Swaney White Violets new double white Daisy, Callas, Primulas, Auriculas, Cyclamens, etc.
Also fine assortment pot and field grown, ever blooming flowers, Geraniums and Verbenas, and general florist stock, at cheap rates, to make room.

CUT FLOWERS

in great variety the coming season.

N. STUDER, Florist.

Anacostia P. O., Washington, D. C.

SELECT PLANTS.

Geraniums, Double and Single, 2 1/2-in. pots	per 100	\$5.00
Roses—Hybrids, strong, 2 1/2-in. pots	per 100	5.00
" Teas, strong, 2 1/2-in. pots	per 100	4.00
" Beauties, American Beauty and mixed	per 100	2.50
Fansies, transplanted from best German imported seed, \$1.00 per 100; \$5.00 per 1,000.	per 100	5.00
Cut Flowers—Best imported Pansy seed, \$1.50 per 100.	per 100	5.00

A. GIBBINS, Danville, Ill.

SMILAX !

1,500 Stripes Smilax	per 100	\$18.00
Smilax seed	per 100	1.25
Mrs. Pollock Geraniums	per 100	6.00
Begonia Rubra	per 100	5.00
Verbenas, 30 varieties, including Heider	per 100	2.50

MRS. FAIRBANKS.—The past season has fully demonstrated that this geranium surpasses all other silver leaf varieties either as market or border plant, and is an inducement to florists will offer a limited quantity of strong 3 1/2-in. pot plants at \$10 per 100.

Brenneman & Petterson, Harrisburg, Pa.

100,000

VERBENAS

The choicest old and new varieties at \$2.50 per 100, \$25.00 per 1,000. Rooted Cuttings, \$1.00 per 100, \$8.00 per 1,000. NO RISK OR DELAY. Packed light, and satisfaction guaranteed.

J. L. DILLON, BLOOMSBURG, PA.

VERBENAS & VERBENAS

50,000 Now Ready. Free from all disease. F. 10

Mammoth set from pots	per 100	\$3.00
Transplanted on benches	per 1,000	12.00
Rooted Cuttings	per 1,000	16.00
25 of the best market sorts from pots	per 100	2.50
Transplanted	per 1,000	10.00
Rooted Cuttings	per 1,000	8.00

WM. DENHOLD.

Verbenas a Specialty. KEWANEE, Henry Co., Ill.

We supply in first Quality

Anagallis Cloquetia, very free flowering.
" named collections.
" seedlings of our best varieties.
" Hornemannia, Jacobus Lily, glaucous, fine variety.
" Azaphanthus umbellatus, blue.
" Begonia, named and mixed.
" Paphia Juncus, Cactus, Ballist.
" White.
" Turgida complanata grandiflora.
" Turgida, named and mixed.
" Helianthus, fine seedlings.
" Phloxanthus, clotted and chrysanthus.
" Phloxanthus grandiflora.
" Begonia alba-maculata
and many other plants and bulbs which are of the best.

DEGRAFF BROS., Nurserymen,

LEADEN, HOLLAND.

Mention American Florist.

As It is Done in the Far West.

The society of Portland, Ore., has apparently been shaken to its foundation, all on account of a florist's bill for a bridesmaid's bouquet. The diffuse newspaper men of that city have devoted whole columns to the matter. From one we clip the itemized bill, which is a gem in its way:

The bouquet appears to have been large and handsome, and to have attracted general attention. The itemized bill, which is as follows, will give an idea of the gorgeous affair:

Fifty five chrysanthemums at 10c.	\$5.50
Mysophyllum	1.00
Aluminum	.75
Asparagus tenuissimus	.35
1 same paper, moss and wire	1.00
Total	\$8.60

With the exception of some horse-radish it would appear to contain everything requisite.

The purchaser refused to pay more than \$3, but when suit was brought, settled by paying the bill, and the court costs in addition.

Another paper prints a lengthy alleged poem on "The Bridesmaid's Bouquet," from which we extract the following choice novelties, which will be offered for sale after they have been sufficiently propagated to weaken their constitution:

So, to grace the rites of Hymen,
And for bridal favors fair,
Are the jewels of the garden
Wrought in wreaths and symbols rare
But when Hymen's torch is lighted
In December's misty gloom
Only "sacell" may dare to monkey
With the rich exotic blooms
But in spite of economics,
It was just the other day,
That a young man of our city
Made a very flowery play,
When he gave a blushing bridesmaid
In a nobly wedding train,
Such a gorgeous bunch of flowers
That he weakened with the strain
For he saw the thing of beauty
In the happy maiden's hand
And his cotton neck will spend to him
It was more than he could stand
So he calmly took occasion
In the brilliant scene and gay,
To invoice his gaudy off ring,
Counting every bud and spray.
Like the Babylonian monarch
In the golden caravans,
Lo! he saw a fatal writing
Glaring on the painted wall,
Twas the florist's bill of items,
And a giant figure "N."
Leering at him, like the symbol
Of a dark, unhappy fate!

Yet, the very next day after
Our "society" again,
Saw the vision of the night time
Take a very business shape,
He was sued for eight left dollars
For the gaudy garden's sake,
Draggling Hymen's court of splendor
Down to "lush" court, alas

When a bright and shining member
Is chrysanthemum, so sleep
Mysophyllumed, adumant
And "asparagus" so deep
That "society" must tremble
With a mighty seismic shock
In its efforts to relieve him
From his costly floral stock

In addition to all this, one of the local theatres is now playing, as a leading attraction, a farce entitled "Who Pays for the Bouquet?" the "plot" being, it is needless to say, founded on the incident related. Who can say, now, that the far western florist is not up to the times?

W·I·R·E + + D·E·S·I·G·N·S

Free, Free, Griffith's Mammoth New Catalogue ready by Dec. 30. Over 250 Engravings. Send for it.

J. GRIFFITH.

308 MAIN ST. - Cincinnati, Ohio
Mention American Florist.

Florist's Letters

Patent applied for.
These letters are made of the best immortelles, wired on wood or metal frames with holes to insert toothpicks.

Prices on Wood Frames:

3-in. Purple, Per 100 \$5.00
Less than 100, 5c.
2 1/2-in. Purple, Per 100 \$4.00
Send for samples. Postage 10c. per 100. Script lettering on Metal Frames any word, 5c. per letter.

Designs, Monograms, etc.

W. C. KRICK,
350 GATES AVE., Brooklyn,
New York.

J. C. Vaughan, Chicago,
Act. west of Pennsylvania.

Mention American Florist.

HAMMOND'S SLUG SHOT

SOLD BY THE SEEDSMEN.

We have thoroughly tried your Slug Shot upon all sorts of insects and potato bugs included, and can heartily recommend it. Yours Respectfully,

Nov. 16, 1886.

CURRIE BROS.,

Florists and Seedsmen, Milwaukee, Wis.

Flower Pots.

A large stock always on hand. Send for Price Lists.

MILLER & HUNT.

Wright's Grove, CHICAGO.

Mention American Florist.

THUMB POTS \$3.00

Thumb pots from \$3.50 upwards. Great price on prices of 10 sizes of small pots. Finish and under special low prices for large orders. Sent each 10 per cent lower than credit. Samples mailed and special price quoted to each applicant, including freight and safe delivery.

SYRACUSE POTTERY.

Ship any distance safely and without delay. We prepare for and deliver at prices one fourth below other potteries, while our pots are as good as the highest priced and perhaps better. Write for prices and compare them.

J. N. PERKINS, MANAGER,
SYRACUSE, N. Y.

HENNECKE'S

Pottery and Wire Works.

— ESTABLISHED 1865. —

NET CASH PRICE LIST OF GREENHOUSE POTS.

2 1/2 inch	per 1,000, \$4.50	1 inch	per 1,000, \$ 9.00
2 1/2 inch	3.00	1 1/2 inch	12.00
3 inch	6.00	1 1/2 inch	20.00

5 per cent. discount for cash with order. No charge for packing.
Flower Pots up to 17 inches; complete catalogue of Fancy and Rustic Ware, Vases, Wire Goods, etc., on application.

C. HENNECKE & CO.,

MILWAUKEE, - - - WISCONSIN.

H. M. HOOKER
GREEN HOUSE
Glass.
BROWN RANCHIST.
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All Glaziers Supplies Write for Latest Prices

GLASS & PAINTS
— FOR —
GREENHOUSEMEN
W. C. PEALE & BRO.
332 & 334 CENTRAL AVE., CINCINNATI, O.
Write for Prices, or consult Cincinnati Mart Report in this Paper

Grind your own Bone,
Graham Flour, and Corn
in the \$6.00 HAND MILL, it
Wilson's patent, 100 per cent
more made in turning. **POULTRY**
Also **POWER MILLS** and **FARM FEED MILLS**.
Circulars and testimonials sent on application. **WILSON**
BROS., Easton, Pa. Mention the AMERICAN FLORIST

IVES' PUTTYING MACHINE
Having been induced to perfect and patent my
invention as mentioned in March 1st issue of A. M.
Florist, I am now prepared to furnish florists
with the best machine yet known for applying
soft putty to old or new sash.
Sent by express on receipt of price, \$2.50.
J. H. IVES, Florist,
DANBURY, - - - CONNECTICUT

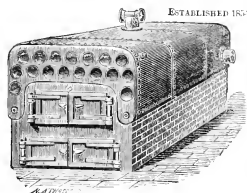
Only Pottery making a Specialty of
Flower Pots
FOR FLORISTS.
WHILLDIN & CO.,
Agents for **J. E. JEFFORDS**
713 & 715 Wharton-st.,
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10000 ELECTRO
FOR FLORISTS SEEDSMEN
& NURSERMEN
HORTICULTURAL
A. BLANCH
SEND FOR LIST OF CATALOGUES
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N. E. ELEVENTH ST.
ENGRAVED PHILADELPHIA

DEVINE'S Boiler Works

381 to 393 S. Canal St.
CHICAGO, ILL.



Wrought Iron Hot Water Boilers

a specialty. Capacity from 200 to 600 ft. 4-inch pipe.
The flat-top type is the best Greenhouse boiler made.
Mention American Florist.

THE CELEBRATED WILKS' WATER HEATER!



For Heating
GREENHOUSES,
DWELLINGS
POULTRY HOUSES,
STORES, BATH TUBS
ETC. ETC.

S. Wilks Mfg. Co.

Cor. Monroe & Clinton Sts., Chicago
Mention American Florist.

SPHAGNUM MOSS

I always keep in stock, especially for Florists' use, pressed in bales of five bbls., at \$2.00 per bale, 10 bales for \$17.50.

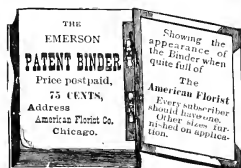
PEAT,

Free from lime, \$1.25 per bbl., 10 bbls. \$10.00.

Z. K. JEWETT, - SPARTA, WIS.
Mention American Florist.

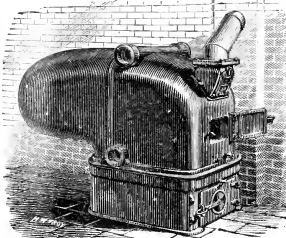
HALES' MOLE TRAP

For destroying ground moles in lawns, parks, gardens and cemeteries. The only PERFECT mole trap in existence. Guaranteed to catch moles where all other traps fail. Sold by seed-men, Agricultural Implement and Hardware dealers, or sent by express on receipt of \$2.00 by H. W. HALES, RIDGECROFT, N. J.
Mention American Florist.



Greenhouse Heating AND Ventilating HITCHINGS & CO.

233 Mercer Street, New York.



Five Patterns of Boilers,
Eighteen Sizes,
Corrugated Fire Box Boilers
Saddle Boilers,
Conical Boilers,
Base Burning Water Heaters

Perfect Sash Raising Apparatus.

Send 4 cents postage for Illustrated Catalogue.

Greenhouse Pipe & Fittings



Large quantities of our Pipe are in use in Greenhouses throughout the West, to any of which we refer as to its excellent quality.

Pipe can be easily put together by any one, very little instruction being needed.

→ Get the Best! ←

Hot - Water Heating, in its Economy and Superiority, will repay in a few seasons its cost

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L. Wolff Mfg Co., 93 to 111 W. Lake St., CHICAGO.

The American Florist Company's HORTICULTURAL DIRECTORY —OF THE— United States and Canada.

THE AMERICAN FLORIST COMPANY

Have in preparation and will publish early in 1887, a **TRADE DIRECTORY**, giving a very complete list of the FLORISTS, NURSERYMEN and SEEDSMEN of the United States and Canada. We have purchased from Mr. Isaac D. Saller of Philadelphia his Horticultural Directory of the United States, with correction sheets, supplements, etc., and from the excellent facilities at our command, have added to and CORRECTED his list until we now have a list of near perfection as it is possible to get it. The latest street and number of those living in cities will insure delivery of catalogues which have never before reached their destination through defective address. Many, whose names appear in the old directories have been dead or out of business for years. These we have largely eliminated from the list.

A VALUABLE FEATURE

Of the new directory is that it will specify the SPECIAL BRANCH OF THE BUSINESS in which the party is engaged, as shown by the following key

F. Florists who both grow and retail.

F. Gr. Florists who grow only.

F. St. Florists who are dealers only.

W. F. Wholesale dealers.

N. Nurseriesmen.

N. F. Nurserymen and Florists.

S. Seedsmen.

S. F. Seedsmen and Florists.

The value of this specification will be readily seen without any argument by all who mail catalogues. As to the correctness of same, we will state that the largest share of our information has been obtained from the business card or letters heads of the PARTIES LISTED, which have been received by us WITHIN THE PAST YEAR, and may be relied upon as 100% information.

The letter signifying the party's business is placed in a column to the LEFT of the NAME; it is the first thing to strike the eye when addressing, and the particular branch of the trade YOU want to REACH can be easily selected in the least possible time. We shall make the

PRICE OF THIS DIRECTORY ONLY \$2.50.

Which will insure for it a wide circulation among the TRADE, and make it a VALUABLE ADVERTISING MEDIUM. Send us copy for your advertisement at once. ADVERTISING RATES, including a COPY of the DIRECTORY, given on application. If you do not care to advertise, send us a subscription for the Directory, price \$2.50.

AMERICAN FLORIST COMPANY,

54 LA SALLE STREET, CHICAGO.

THE AMERICAN FLORIST



America is "the Prow of the Vessel; there may be more comfort Amidships, but we are the first to touch Unknown Seas."

Vol. II.

CHICAGO AND NEW YORK, JANUARY 15, 1887.

No. 35.

THE AMERICAN FLORIST

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SOCIETY OF AMERICAN FLORISTS.—Robert
Craig, Philadelphia, Pres.; J. C. Vaughan, Y.
Pres.; M. A. Hunt, Treas.; Edwin Lonsdale,
Chestnut Hill, Philadelphia, Sec'y. The third
annual meeting at Chicago, August 16, 17 and
18, 1887.

Hail Insurance.

The plan of "hail insurance" upon
which the directors of the Florists' Hall
association of America have agreed, con-
sists of a membership fee of \$3.00 for
each member having 2,000 or less square
feet of glass, and 50 cents for each addi-
tional thousand. Membership fees to form
a reserve fund to secure loss, and to be
held permanently by the treasurer. The
interest of said fund to be used in paying
losses.

One advanced assessment of 8 cents
per hundred square feet of single-thick
glass, and 6 cents per hundred square feet
of double-thick glass, to be paid upon
becoming a member, and to be paid in
advance whenever the payment of losses
shall have exhausted the assessment
fund in the hands of the treasurer. The
person insured to receive, in case of loss,
5 cents for every square foot of single-
thick glass broken, and 7 cents for every
square foot of double-thick glass broken.

Proof of loss to be sworn to by said
party, and also by two disinterested per-
sons not in his employ, or relatives of
the loser. The secretary to have full
power to investigate concerning any or
all proofs of loss.

Further information concerning details
can be had by applying to the secretary,
John G. Esler, Saddle River, N. J.

Renew your subscription through any
of the following agents, or through any
of the wholesale seed houses in the larger
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January Floral Styles.

BY OUR NEW YORK CORRESPONDENT

Few persons privileged to see the elegant work of our first-class florists can fail to observe the great care given to detail—the harmony in color, in the kind of flowers and foliage used in combinations, and particularly in the selection of greenery associated with heavy or light blossoms. It is not long ago, when geraniums, snail-plant, and most any green leaves would be lunched with flowers, whatever their character. In fact, a leading florist, who used ivy almost exclusively in decoration, and for the foliage of bouquets and baskets last season, would cluster a lot of these leaves of heavy texture under the most fragile blossoms. But that will not do in this time. Selected foliage has been so brought to the front in green arrangements, that it is a matter of consequence at present, the fringing of any piece made. A frond of lacy fern is appreciated as a gift, sometimes, as much as a hybrid *mauve*. Consequently, considerable thought is given in every decoration to what is no longer of minor importance—the foliage which finishes it.

A very elegant carnation ornamentation, made by Mr. Hall, of S. J. Burnham & Co., for a dinner last week, was done by cutting to the roots plants of superbly flowered pinks. These were plunged into a large, flat oval four feet in length, and were allowed to stand erect or droop, the center piece being one rich mass of these spicy blossoms, with their foliage, and the colors were so managed that they were beautifully harmonious, notwithstanding there was a mixture of so many shades and tints. The favors were *Mde*. Cusine roses, which, with their colors of pink and yellow, are very suitable when the center-piece is kaleidoscopic.

A white dinner, arranged for a young debutante, was one of the loveliest of the season. On a white satin table cover a vine of freesia trusses was placed in a delicate tracery, just above the covers. The center-piece was a combination of Roman hyacinths, narcissus, and *Hy* of the variety. The favors were hand-bouquets of white violets. A dinner embellishment of foliage was made on a table-cover of sea-fawn tint, where there was a plush mat of the color in the centre, and under the candelabra at each end. The middle design was a large oval, formed of adiantums of the choicest varieties, A. Farleyense, fringing the piece, and the large fronds of the lighter sorts making billows toward the centre with their fantastic lace, where a beautiful display of selaginella was made on an oval of lace. The candelabra were trimmed with *Asparagus tenuissimus*, and there were favors of magnolia leaves. These leaves are gilded at the edge, and some appropriate motto of salutation is stamped on each one.

The pea-blossom luncheons are all the rage for these entertainments, which are given by the younger girls in society. Pea-blossoms are so scarce that usually primroses must be used to fill the gap; the association of these flowers is delightful. The satin cover of the table is shell-pink; sometimes the cover is a delicate lemon plush. Center pieces are not fashionable for luncheons, the flowers being strewn over the cloth or placed in tracery. Roses are not used, either, for these entertainments, unless it is the little Mignonette rose, which is even more charming than primroses with the dainty pea-blossom. Spun-glass baskets of small size are arranged for favors, and are highly ornamental, filled with sweet peas and acorns.

Cyripediums are very fashionable for evening dinners, and look extremely elegant where there is a fine display of cut-glass. The uncolored moss, christened by Mr. Hogg "mermaid's hair," is used, as are callas, with cyripediums. The moss I refer to is a sponge which is gathered on coral reefs and the rocks of Bahama islands. It is sold here colored a bright green, but is far prettier uncolored, when it has a sedge color.

A new departure in dinner decoration is the introduction of the "Ferry lamp," which is a small globe lamp with shades that produce lights of several colors. The embellishment is usually made on a crimson cover of satin or plush. The lamp, usually suspended in the center, is hooded, as are the lights of the candelabra. The center-piece is made of asparagus, adiantums, and Jacqueminots. At each cover stands a Ferry lamp, and by its side a crystal flower-glass, containing a single rose in color to match that of one light. This decoration is beautiful and unique.

For day decorations the Bougainvillea spectabilis, just coming in, is considered the most stylish garlanding. It is draped over easels, cabinets and mirrors; and is caught up at intervals with cattleyas. Lambrequins of this dazzling plant are most artistic, placed in an arch, or over a bay window, and if combined with white callias or longiflorum lilies, are effective. Nothing can be more choice than ornamentations made with *Bussiora* princeps. The altar and cereolas of old Trinity church, which are built of pure white stone, were trimmed in a fascinating way Christmas. The statues in relief in the *ercedos* were most gracefully draped with passion-vine and longiflorum lilies. The niches were filled with *Cocos Weddelliana* and *Areca luteusena*. The reading desk and pulpit were massed with snail-plant and poinsettia, this blaze of color being very gorgeous against the white stone background. The font was filled with holly and callas, and the altar railing, which was also white, was wreathed with snail-plant and poinsettia.

Considerable space is occupied in room

decorations with palm collections, which are placed at the head of the apartment, the tallest specimens being stood at the head next the windows, and completely screening them. The plants are graded in size until a bank is formed, and small-sized but perfect palms furnishing the foothills. The South Carolina and Georgia yellow pines are very ornamental for room embellishment, and are particularly suitable when other evergreens are used. The growing holly plants imported by Mr. Bird, which are from two to five feet high in pots, have made fine arrangements in connection with yellow pine. These evergreens were formed in pyramids at each end of the room. Panels of holly and Von Thol tulips were placed on the walls, alternated by panels of mistletoe and white tulips.

The French fish basket, trimmed and valenced with old gold satin, was used several ways for a golden wedding celebration last evening. There were eight of these baskets ordered. One was filled with Perles, one with Marchal Niel roses, and one with yellow candelums. *Gloriosum chrysanthemum* were resplendent in another. Double narcissus and yellow daisies filled another, and *Calendula meteor* the remainder. These baskets were placed at the base of mirrors on cabinets, tripods, on the piano, and on pedestals. They dressed the drawing-rooms very handsomely. The bride of 50 years wore a dress of old gold brocade, the train held by Capucine rose-buds; she carried a large hand bunch of the same flowers.

Very striking effects are accomplished in dress garniture. Black velvet gowns are trimmed with stately camellias, which as a rule are white. A row of small ones define the plastron of the bodice, and a panel of the same flowers is introduced on the left side of the plain skirt. This is a severe but very stylish garniture. Something of a feat was most successfully carried out by a fashionable florist, who made an entire gown of flowers for a "flower-girl" costume that was worn at a fancy-dress party given Christmas eve. The dress of white net which had been neatly fitted, was covered with marguerites. There was a berthe of lily of the valley, and the sash, which formed the drapey on the back of the skirt was ribbon, held in place by clusters of long-stem Bon Silene buds and pink bonvardia. The latter flower is exquisite for gown garniture, but too frail to give satisfaction.

Wreaths of flowers are very fashionable for German favors. The wreath appears to be coming up all around. It is in large demand as a wedding design, for funerals, for memorial pieces, and for favors. Wreaths of pink tulips, tied with satin sashes of the same color, are very much liked in the dance. Half-wreaths of small buds and sprays of freesia and pea-blossoms are worn by young ladies whose hair is cut short and curled in the prevailing style.

A Novel Floral Design.

We give herewith a sketch of a floral design depicting a spider and fly on a web. This design was worked out by Mr. Harry Smiderbruch, of Cincinnati, and exhibited at the exposition held there last fall. It attracted no little attention on account of its originality. We have secured the following notes in regard to its formation.

"The web of white floral poses was stretched across gilded poplar poles ten feet in height. The body of 'his spider-ship' was of Perle des Jardin roses,

striped with pansies, heliotrope and maiden-hair fern. The head was of La France buds and its legs were made of tube roses on wires. The fly, made up of mixed flowers, had wings of gauze."



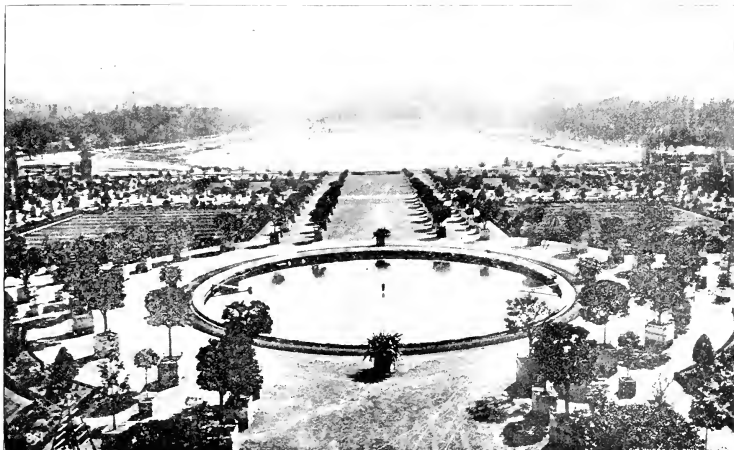
THE HOLIDAY TRADE.

ALBANY.—The holiday trade in this city has been equal, if not superior, to that of any other year. As the supply of roses was extremely limited, the prices realized were slightly in advance of former years. There was a steady demand for the larger grade of roses, and good Mermets, Bennets, and Beauties brought satisfactory prices. In fact, all good roses found willing purchasers. A few orchids were offered, and it appears as if our people are beginning to appreciate these flowers, for a more ready sale was met with than heretofore. The supply of all varieties of flowers was extremely short, with the possible exception of Roman hyacinths. The trade in holly and mistletoe is developing at a considerable rate, and for one case formerly sold six are now disposed of. The whole business done was very satisfactory, and though there are more florists this season than ever before, yet every one appeared to have plenty to do.

MILWAUKEE.—The holiday trade was a trifle larger this year than usual, for the reason that we grow more flowers, a number of additions having been made to the greenhouses of the city during the past year, but at no time has the Milwaukee florist been able to supply the demand for flowers for Dec. 25 and Jan. 1, so it is impossible to say what we could sell if we had them. There is one indication which I think goes to show that the demand has increased to a larger degree than the supply; that is that for Jan. 1 the prices were forced higher than they were a year ago. The most decided change in the holiday trade here is the large increase in demand for holly, green, fairy flowers, etc.; fully twice as much holly was retailed here this season as last. This change brings great relief to the florist in one way; he can make wreaths, etc., for 50 cents and upward and supply hundreds with something to decorate with for small amounts, leaving his supply of flowers for larger and more profitable orders. Our florists have always been overrun with demands for 50-cent and \$1.00 parcels of cut flowers for Christmas parties who never order a flower at any other time. With holly we satisfy all. One peculiar change in affairs Jan. 1 was the demand for rose buds; it increased out of proportion to the demand for mixed work. W.

BOSTON.—All reports indicate that holiday trade in this section was very satisfactory. Prices generally were better maintained than they have been for several seasons, and stock of every kind, with the exception, possibly, of Roman hyacinths and smilax, was well used up. The supply of small tea-roses was less than ever, but as the demand for them has been steadily falling off, the scarcity had no special effect upon the price. Of American Beauty, Bride, and other recently introduced roses, also pansies and mimouette, there was none to speak of, although there was a large demand for all of these. Good La France were very scarce, Mermets, Perles, Sunsets, Bennets and Niphets were all of best quality, and in good supply, with equal demand. Carnations were fairly abundant, and the call for long-stemmed, fancy varieties was very great. Lily of the valley, narcissus, tulips, bonvardia, etc., also sold well. Callas and violets were scarce, and the demand for both far exceeded the supply. Roman hyacinths, as usual, were overstocked, with the usual result, low and uncertain prices. The newly introduced palms and pine-tops, from the south, met with a ready sale, although there were but few large or elaborate church decorations. The sale of holly was enormous. English mistletoe sold but slowly, and American mistletoe proved a veritable elephant. The weather was favorable for the shipping trade, and but few complaints of freezing or overheating have been heard of. W. J. S.

NEW YORK.—The general verdict of our florists is that the Christmas sales were very much larger this year than last, and that outside of the use of evergreens, which are every season becoming more popular and are employed in greater quantities, the demand for fresh flowers is double that of five years ago. The bulk of the orders for Christmas was for baskets and boxes of cut flowers. A very brisk trade was done in natural dried flowers, pressed foliage and immortelles. The New Year's trade with fashionable florists was excellent, for they received the orders for entertainments at country seats, very choice, and of course, costly. Factors were in demand for the merry-making affairs at Hollywood, Long Branch and Tuxedo. Thorley, who does not take an order for a hand bouquet for less than \$10, made several floral favors to the tune of considerably over \$100 each. Florists who do not so largely cater to the fashionable set state that New Year's was a poor day for business. Calling in town is only exceptional, and consequently the demand is meager. A large quantity of orchids was in request holiday week. All the growers cut their plants clean of bloom. Small quantities of sized roses were in greater demand than there was supply. Such roses, I mean, as Papa Gontier, fine Perles, Bon Silenes and Bennett buds. There was also too much white and an absence of color in the flowers brought to market. Carnations were extremely scarce, and being exceedingly favorite, more were needed. It was not a twelve-month ago that Mr. Thorpe remarked to me that the large and exquisitely colored carnations will tread hard on the heels of the rose, in rivalry; this prognostication is being realized. Carnations are growing very fashionable, and there was not near enough of it this holiday-time. Pink, scarlet and the white and blush double are charming blossoms and most useful in association with roses, mimouette, hyacinths or lilies. More callas were required than could be obtained Christmas.



PARK VIEW, NEAR PARK VIEW, ORANGE, N. J.

The supply of *L. Harrisii* was sufficient. The sale of holly and mistletoe was enormous. Orders for a month ahead include these evergreens, which are remarkably handsome this winter. Fine ferns were also in heavy demand, and *Asparagus tenuissimus*, which in many instances was used in combination with the red berries of the deciduous holly *Prinos verticillata*. New Year's flowers were not up to their average quality, the dark weather the week previous probably being the cause.

PHILADELPHIA.—Florists are well satisfied with their Christmas trade. All did a good paying business. No case is reported where there was a falling-off in orders. An increase was the general expression all along the line. The prices realized were equal to any of recent years. American Beauty and Jacqueminots were in demand, Bennett doing duty for the latter in some instances. There were a few "Jacques" in the market. J. William Colless had a crop in. W. K. Harris' was about over. Beauties were not very plentiful. A. L. Pennock & Son cut some grand flowers about that time. Perles, La France, Mermets were in demand and the supply was very fair. Walter W. Coles had a fine crop of Perles in, just at the nick of time, cut from his new houses at Lansdowne. The buds were of fine quality, showing evidences of good culture and a rose soil. Lansdowne is about six miles from Philadelphia. Charles S. Price is also located in the same neighborhood. His roses are always good, especially Pierre Guillot. In addition to the increased demand for flowers there was never more laurel, holly and evergreens in general used than there was this year. Mistletoe was in great demand, and the supply was generally equal to it. Red stars in immortelles, for home decoration, were used in quantity. Wreaths, crosses and designs of like character, made of immortelles and cut

flowers for cemetery use, exceeded in numbers used that of any former year, and yet the supply was not equal to the demand. New Year's sales are falling off every year; if it continues in the future as it has in the past, in a few years New Year's day will become the florists' holiday, and that would not be without its benefits. Is the falling off of the New Year's trade general or is it confined only to Philadelphia?

CHICAGO.—The sales for Christmas exceeded last year, while those for New Year's fell considerably below, making the average of holiday sales about the same as last year. Prices equalled and in some cases exceeded those of last year. Much holly and green were disposed of. Fine rose buds were in best demand, with fair supply for this season.

CINCINNATI.—The holiday trade is reported by florists, without exception, as considerably ahead of that of last year. Not only were the sales larger but the prices realized were better. Flowers of all kinds were pretty scarce with the exception of forcing stuff. Roman hyacinths, lilies of the valley and narcissus were all plentiful, but roses were rare enough to command just what ever the florist chose to ask for them. Considerably more holly was used than ever before and there was a good demand for mistletoe. While the Christmas trade was brisk there was a drop in business on New Year's day. Sunderbruch caught the lion's share, and he was as busy as he well could be making up from forty to fifty baskets between the hours of 9 and 2. Calling is an obsolete custom in society, and there was not a reception given that day. The clubs all entertained crowds, but the floral decorations there were "skimpy" and consisted mainly of a few festoons of evergreens and wreaths of holly. Trade on New Year's day has been going from bad to worse for the last half-dozen years.

BALTIMORE. The demand for flowers, plants and Christmas decorations has been generally good, and probably a slight increase on former years. Snow, rain, sleet and hard freezing weather prevailing all during the holidays, prevented, I have no doubt, many sales from being made, which otherwise would have made the flower demand far above preceding years. All retail flower stores have done a fair business and are perfectly satisfied. Good roses have been scarce, and most of those used came from Philadelphia, New York and Boston. The prices which were paid for the same left little margin for those who ordered to sell again. The demand for good palms, suitable for window and parlor decoration with handsome jardinières to hide the common pot, have met with good sales, and this taste is growing rapidly, many sending presents of this kind instead of baskets or bouquets of cut flowers.

BUFFALO. The demand for flowers at the holidays seemed to be somewhat less than usual from some quarters, while others again called for more, and total sales averaged about as usual or nearly so. Prices realized *had to be* higher for good stuff than previous years. I think that between the growers and wholesalers a great mistake is made in forcing prices up to such an extravagant point, especially to retailers who are steady and regular customers the year through. The best demand was for good roses. Supply was not equal to the demand, even at prices charged, and no flowers were wasted. The call for long-stemmed cut flowers has almost entirely superseded that for baskets. We now sell only one basket where we formerly sold five.

D. B. L.
GRAND RAPIDS, MICH. Holiday trade was only fair and not equal to last year. Trade has since been quiet, with plenty of flowers.
J. A. H.

LOUISVILLE, KY.—Holiday trade was better than last year. Sales were a great deal larger and flowers brought better prices. The call was for rose buds more than anything else, but hyacinths, narcissus and violets were in great demand. The supply of most flowers was short, but rose buds were plentiful. The flower-trade is on the increase here. G. T.

MINNEAPOLIS.—Trade has been dull all the season, and the holidays did not bring about any change. So many of our wealthy society people are away from home this season, is given as a reason. One large grower here cut retail prices down below Chicago wholesale rates. E. H. Smith has closed up and stopped business.

DENVER.—The holiday trade exceeded that of last year by at least 75 per cent., and in many instances by 100 per cent. Prices realized were much in excess of those of last year, the principal demand being for fine roses. All fine flowers in general sold well. The supply exceeded that of previous years by at least 50 per cent., and still it fell far short of supplying the demand. C. R. G.

KANSAS CITY.—The holiday demand was larger than usual. Heretofore the demand has been no more at the holidays than at any other time of the year; this season therefore shows a decided improvement. Prices ruled fair with sufficient flowers to satisfy all; roses were in best demand. Very little call for green outside of the churches. Holly sold fairly, and, as usual, those who dabbled in mistletoe lost money. The trade this fall and winter so far has shown an improvement over past seasons. R. S. B.

ST. LOUIS.—The demand for flowers has kept pace with the supply and prices have equalled that of former years. Holiday work has fallen off a little; that of New Year's more than Christmas. Roses still hold the place of honor as the flower most in demand. The advanced prices for the holidays always brings a good supply, and this year there was an abundance of good flowers. Holly, green and mistletoe sold better this year than ever before. J. M. J.

PITTSBURGH.—The holiday trade has been very active with high wholesale prices on flowers. An unusually large quantity of holly, mistletoe, laurel and other evergreen material has been sold. The sales of cut flowers at New Year's exceeded, while those at Christmas hardly equalled last year. The supply was fairly equal to the demand. The principal call at New Year's was for choice roses, while at Christmas all good flowers were in demand. We cut our first freesias Dec. 24. J. R. & A. M.

ST. PAUL.—The holiday trade was very satisfactory. The Christmas trade was better than for years, with prices averaging higher than the last three years, but the retailers complain that the profits all went to the grower. There is no doubt that New Year's trade would have amounted to at least 25 per cent. more, if prices had been more moderate. Flowers were not scarce, some florists having quite a quantity left on hand after New Year's trade was over. Taste, or fashion, seems to incline more to decorative plants and flowers loosely arranged in vases, rather than solid banks and designs, so much in vogue a few years since.

Do you want any information on trade subjects? If so, ask for it through our columns.

Aster "Comet."

This novelty is introduced by Messrs. Haage & Schmidt, of Erfurt, and described as a "new and extremely beautiful class of the same height and habit as the 'Dwarf Paeony Perfection Aster,' forming fine, regular pyramids twelve to fifteen inches high and covered profusely with large double flowers. The shape of the latter deviates from all classes of asters in cultivation and resembles very closely a large-flowered Japanese chrysanthemum, the petals being long and somewhat twisted or wavy-like, curled and recurved from the center of the flower to the outer petals in such a regular manner as to form a loose but still dense semiglobe. Well-grown plants produce from



twenty-five to thirty perfectly double flowers measuring from $3\frac{1}{2}$ to $4\frac{1}{2}$ inches in diameter. The color is a lovely delicate pink bordered with white. This new tribe differs just as conspicuously from the other classes of asters known and cultivated up to the present day, as the Japanese chrysanthemum from the ordinary large-flowering varieties."

Exotic Flora of Southern California.

IV.

In southern California everything is a climber. We train our fuchsias up bay windows, and festoon a portico with heliotrope, while cianthus (naturally a shrub) sprawls inelegantly half way up our houses. Such a wealth of evergreen climbing plants do we possess that those of deciduous habit are apt to be neglected.

Clematis of most sorts give grand results, as do wistarias, akelias and ampeleopsis; yet but comparatively few are planted. The climber that "takes" must be evergreen, and ever-blooming, if possible. So sweet and desirable a plant as *Mandevilla suaveolens* is neglected because tardily deciduous. Passifloras and tacsanias fulfill all requirements, all are strong growers and abundant flowerers, and it is no uncommon sight to see fifty feet or more of fencing draped with two or three plants, the whole resplendent with pink or scarlet blossoms.

The little "Australian pea" vine we find planted around water tanks, where it has shot up for twenty feet, and completely embowered the whole structure. Heliotropes are sometimes lightly nipped with frost, but rarely killed at the latitude of Los Angeles. The *Cianthus puniceus* mentioned above is a superb thing, whose scarlet and black flowers are universally admired; while *C. Dampieri* shows its more unassuming blossoms occasionally in our gardens. *Cobea scandens* is common, but perennial, and its coarse, but

showy blooms may be seen on many a trellis.

Bongaiuvillias' brilliant bracts, so valuable for decorative purposes, are still far from abundant, yet it has stood the test of at least one severe winter. *Ipomoea noctiflora* is perennial, likewise, yet being quite tropical sometimes suffers in winter some loss of foliage. It is one of those things worth risking, however, as its snowy "moon flowers" are most effective against its own dark foliage. Wherever you have a half-shady nook the dainty mauraudia will twine itself upward a respectable distance. Neither it nor the stronger growing *Lophospermum scandens*, however, produce flowers of much value to the florist. Not so with *Physianthus allens*, whose fine white clusters of bloom are so prodigally produced throughout the early autumn. Everywhere on the ground or among the rocks *Ficus repens*, *Fuchsia repens*, *traleascentias* and *vincas* of sorts form carpets of surpassing beauty and great endurance.

Antigonon leptopus, I am told, has wintered and flowered out successfully, but I have not seen it. In that case it will prove a host in itself to our exotic acquisitions. Of course, the common white and yellow jasmynes are perfectly hardy and rampant growers, and profuse bloomers. Their dainty, fragrant blossoms, thread-like peduncles, and fine cut foliage makes them most valuable for floral work. Not for a moment, however, do they compare in beauty with *J. sambac*, whose rich flowers are only excelled by a gardenia. Of *J. sambac*, after noting it in several localities, all we can say is that it is willing to exist—not flourish, out of doors. At best it makes but poor growth and flowers, and on the whole does not confer glory on our climate. We can, perhaps, find consolation in the perfect success attendant upon outdoor culture of two of our choicest greenhouse climbers, to-wit: *Hoya carnosus* and *Stephanotis floribunda*. The former makes a strong growth and flowers, and on a 4-year-old plant of the latter I have seen over three score finely developed flower-clusters at one time; while a successful and reliable florist has assured the writer that from one open air plant at San Diego he has taken a full bushel basket of blossoms at one cutting!

Following in the wake of these beauties, as a close competitor, comes that most elegant and pleasing of climbers par excellence, *Rhynchospermum javanicum* (climber); to it too much praise cannot be accorded. I know of one vine in east Los Angeles completely enclosing one end of a dwelling, and from June to September the neighborhood for a block is redolent with its surpassing sweetness, while no other climber known to me rivals in beauty its thick, dark glossy foliage.

Campisium filicifolium makes vigorous growth of twenty feet, though its out-of-doors luxuriance is somewhat destructive of the fine fern-like habit of foliage acquired under glass, and wherein lies its chief charm. *Bignonia*s of many species, including those reckoned as *tecomas*, abound everywhere, and, though of colors not readily assimilable to most floral work, their lavish and brilliant indolence contribute bright effects to our gardens. *Thunbergia laurifolia*, another elegant climber and greenhouse treasure of price, flowers finely out of doors when accorded a slightly sheltered exposure. The pretty *clitoras*, *solanums*, *ivy geraniums* and a host of lesser and handier satellites we must dismiss with a single notice of their aptitude for open-air cul-



NEW TEA ROSE LUCIOLE

ture, and conclude with a few general observations as to the growth of plants here, in the east, and in their native habitats.

Our planting-out season begins here in midwinter, more from force of bad habit than from any benefits derived from so doing. The ground is generally cold, wet and soggy, and if a plant is in a thrifty condition when set out its vitality will not be so exhausted but that it can recover, but never catch up with one set out in April, May, or even June. Of course the absence of heavy frosts makes this possible, but no whit more desirable.

Our season of vigorous growth for nearly all plants, excepting a few conifers and indigenous shrubs and trees, is confined to six months at most, i. e., April 15 to Oct. 15—really, despite our "semi-tropical" climate, only about one month longer than enjoyed in the east. Yet the eastern grower can accomplish vastly more than we in a more limited time. Given uniform advantages in soil and cultivation, the eastern grower of tender bedding plants in four or five months can achieve greater results than we can in twelve.

Our cool, dry summers cannot compete with his warm, humid ones, and as like conditions to an eastern summer exist

largely in the tropics, we are placed at a similar disadvantage in growing sub-tropical and tropical plants.

With plants such as roses and carnations, capable of vigorous growth at low temperatures, of course we can excel the eastern grower. The act of lifting and replanting under glass produces more or less shock, and before recuperation ensues our undisturbed plants have outstripped them in growth and consequent flowering capacity.

Of palms, and all plants having wide-spreading and gross-feeding roots, this is particularly true; and to the fact of not having to subject their roots to annual injury, rather than to continuous growth, during the winter, are we indebted to accomplishing results in three years that ten years of alternate in-door and out-door treatment would not effect in colder latitudes. Of course, the haphazard planting of tropical plants frequently brings the planter to grief, and much remains to be done to establish definitely the value of desiderata in the latitude of southern California.

The matter is largely experimental, and at present confined to a few enthusiastic amateurs, through which channels the general public gets scant information.

Los Angeles to-day is a city of 40,000 inhabitants, yet cannot boast of a single botanic garden, experimental station, or even so much as one public park; unless the two little measly, fenced-in city squares, and a howling wilderness of hills on the outskirts, be dignified by the name of parks. When to this is added the fact that the three or four firms established here as nurserymen and florists do not represent enough combined capital and enterprise to fairly develop our resources, it is patent that some time may elapse before the final destiny of this place, to become, like Nice, one of the floral centers of the world, be fulfilled.

Los Angeles, Cal. W. S. LYON.

New Tea Rose Luciole.

ORIGINATOR'S DESCRIPTION, TRANSLATED FROM THE FRENCH.

"This exquisite new rose was raised by M. Guillot, of Lyons. It is a seedling from Red Safrano, which would indicate that it shall prove a free bloomer. The plant is strong and vigorous and carries buds as long as fine Niphetos, sometimes slender, but more often very plump at the base and tapering; the open flower is very double and extremely large, reminding all who see it of a fine, ripe, ruddy peach, so high is its fine color and so soft the texture. The color is bright carmine rose, tinted with saffron yellow and copper; the reverse of the petal is bronze. One of the most odorous roses in the entire family. The stem up to the calyx is covered with soft small briars which gives it the effect of the moss-rose stem. A half-open bud broken away from the calyx and reversed, shows a depth of golden orange and copper which is quite startling in a rose, and the effect of this shade against the deep carmine of the upper half of the petal accounts at once for the richness of its appearance. We are anxious to hear the expression from American rose growers when they see this fine flower on established plants."

The Bennett.

I would like to hear from the readers of the FLORIST as to how the Bennett is succeeding with them this winter. Mr. Wm. Hanson, the champion Bon Silene grower around Philadelphia, informed me the other day that he should pull the Bennett out, never to grow it again. Mr. Graham also stated that they would pull theirs out this week, to make room for stuff that would pay.

Sunset Rose.

Noticing some time ago an article in regard to the color of "Sunset" rose, I send you by mail a bud cut from one of a number of plants, the cuttings having been selected last winter from the best colored buds. All of the plants set out have buds of as good color as the ones selected from; some better, but of various shades. The plant from which this bud was cut has others about the same shade. I also mail you bud of American Beauty with rather pleasing and peculiar foliage.

Plainfield, N. J. F. W. MILES.
[The buds of Sunset were very nicely colored, though could not be seen at their best as they had been slightly touched by frost in transit. The Beauty had an abnormal development of the sepals, two of them being leaves with three and four leaflets respectively, each leaf possessing fully developed stipules.—Ed.]

Chrysanthemums for Exhibition.

BY WATER COHEN.

The "Queen of Autumn" is becoming more popular every year. Shows are occurring in nearly all the large cities, and to meet the growing demand for this tall flower florists should prepare early to grow at least a few plants for exhibition.

Cuttings may be taken any time, from the present time till the first of March, and grown into as fine exhibition plants as have yet been shown. The cuttings should be struck in a rather cool temperature—say 50°—and grown on in a house ranging from 45° to 50°. Do not allow your cuttings or plants to wilt from the time the former are placed in the sand-bed until the latter adorn the exhibition hall; nor should they be allowed at any time to become pot-bound. Give them rich soil and good care, and you will be well repaid by November, 1887.

Don't attempt to grow chrysanthemums for exhibition if you are going to neglect them in the spring for bedding stuff. May and June are the two months in which they need the most care, and I feel satisfied that most of the failures to grow good chrysanthemums may be attributed to the careless treatment the plants receive during the busy spring months. I would much rather have thrifty young plants from thumb-pots, any time in May, than big stunted plants in 6-inch pots.

The large-flowered kinds are the best for specimen plants. There are now so many good varieties that it is rather difficult to name the best, but I will name twenty-five or those that I consider the best, or as good as the best:

Grandiflora (yellow); Mrs. Frank Thompson (pink); Mrs. George Bullock (white); Gloriosum (yellow); Pietro Diaz (red); Hero of Stoke-Newington (pink); President Arthur (pink); Robert Bottomly (white, an improvement on Moon light); Syringe (pink, requires to be well grown, and not stopped too late); Minnie Miller (dark rose); Mrs. Wm. Mencke (bright yellow); David Allan (crimson red); Duchess (red); White Dragon (white); Golden Dragon (deep yellow); J. Collins (copper bronze); Brazen Shield (bronze); Bonquet Fait (rosy lilac); Thunberg (primrose yellow); Annie Salter (deep yellow, incurved); Diana (white, beautifully incurved); Duchess of Connaught (silvery blue); Jeanne D'Arc (white and rose); Emily Dale (rich primrose); Mrs. Shipman (light bronze).

There are many other varieties that are about as good as those named; but I think my list takes in pretty much all the colors to be found in the chrysanthemum, and I know them to be good exhibition kinds.

Lansdowne, Pa.

Carnation Buttercup.

In your issue of Nov. 15, A. E. W. justly eulogizes this carnation, but leaves it with one fault, the absence of perfume. This is not uncommon with yellow carnations, noticeably with Astoria, the male parent of Buttercup. A forest of Edwardsii fertilized with Astoria, produced the seed from which Buttercup, Duke of Orange, Field of Gold, and Venus were raised; all from the same lot of seed, and when we consider that like begets like, I guess we shall have to lay the lack of perfume to old Astoria.

No carnation will produce so uniformly large florets as Buttercup, and the plants can be lifted from the open ground even when commencing to bloom, and

not lose any of their buds (if given proper treatment in the greenhouse), which is the case with but few varieties, Grace Wilder being another exception. Buttercup has a peculiarity with us of developing from two to five perfect full-blown florets at one time, on a single stem, and often can be gathered with four fine large flowers on a stalk eight to nine inches long.

Its native soil is a strong, sandy loam, with perfect drainage. Failure in blooming carnations is often caused by mixing too much coarse and raw manure with

wet after the first six or eight days. In forcing do not allow the atmosphere to become too hot and dry, and do not be afraid to let in the air, even if it is freezing cold out of doors, especially on clear days.

Carnations delight in full sunlight, and large span-roofed houses are decidedly the best to bloom them in; a night temperature of 40° to 50° is right for keeping them in good health, and to have them bloom from November to June, with a day temperature of 60° to 70°. If more flowers are wanted at any particu-

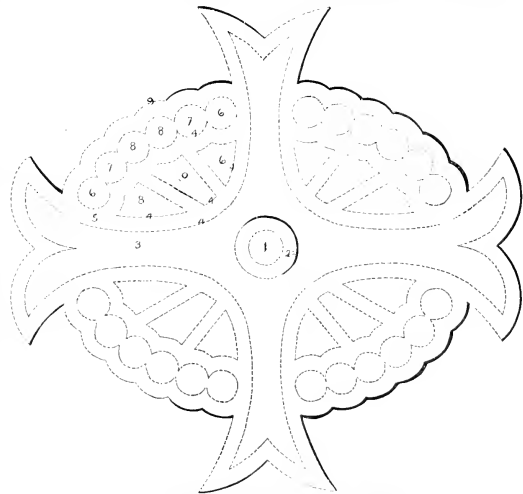


FIG. 1. BEDDING PLAN FOR CARNATIONS.

lar time (holidays, for instance), a night temperature of 60° to 65° may be kept up for a week or so, if well aired during the day-time; but it will not do to continue it for any great length of time. A light fumigation with tobacco-stems, once each week, throughout the firing season, suffices to keep away the aphides; prevention is better than cure.

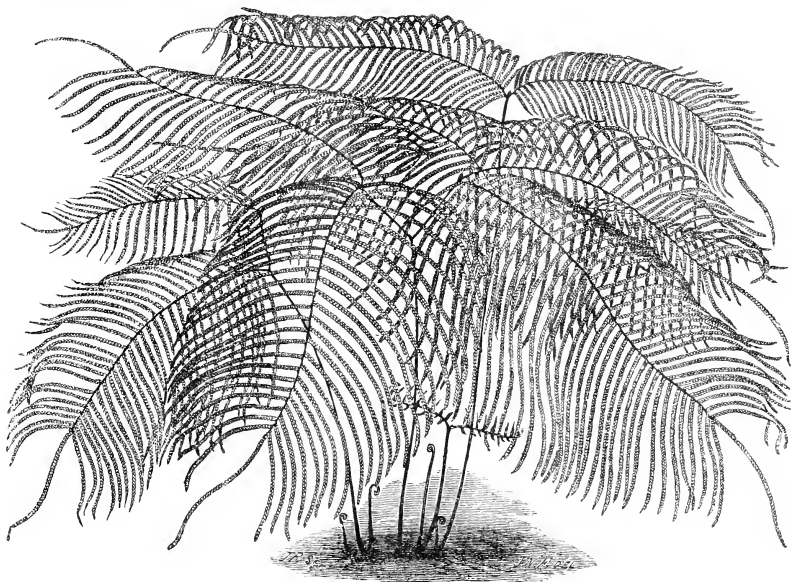
CHAS. T. STARR.

Design Bedding.

The diagram given on this page is of the large bed which occupied the center of the sunken parterre at Lincoln park, Chicago, the past summer. It was planted as follows: 1. Vase. 2. Colons Bacon. 3. Colons South-park Gem. 4. Acleranthus metallicus. 5. Colons Mary Stewart. 6. Geranium Wonderful. 7. Geranium Mt. Thelend. 8. Geranium Mt. of snow. 9. Gnaphalium lanatum. 10. Colons Verschaffeltii.

NATURAL GAS is working very satisfactorily in Pittsburgh greenhouses where it is in use; with it there is no cooling off of the heating pipes during the night, so the night labor is practically done away with. Look out for a new silver-tinted alternanthera, that will soon be offered to the trade.

A. M.



Gleichenia Dicarpa Longipinnata.

Gleichenia Dicarpa Longipinnata.

This beautiful fern is a native of Australia, of comparatively recent introduction, and therefore scarce as yet. It is classed among the greenhouse varieties, is of free growth, and, as can be seen from the illustration, is remarkably graceful and elegant. A fine plant for exhibition purposes, and also useful for cutting. Propagated by division or from spores.

The Carnation Disease.

This season I have, for the first time, lost a few DeGraw carnations, by what I suppose to be the carnation disease. A careful examination of the stem, where it begins to branch into roots, revealed in every case the presence of maggots in small numbers. These maggots are scarcely visible to the naked eye but are readily seen with the aid of a common pocket lens, they are of a white color, translucent and resemble somewhat the just-formed rootlets of the plant, for which they may be easily mistaken. I suppose their small number may be accounted for by the fact that when the plant first shows signs of decline their work is done and most of them have disappeared.

This "disease" has appeared only among plants which were grown upon ground which was occupied the preceding summer by carnations. I have not lost any from plants grown upon new ground. To fill out a bench I bought 144 DeGraws of a neighbor; these were grown upon ground which had been oc-

cupied the two preceding seasons by carnations; already half of them are dead and the rest are looking bad. The soil in which these plants were grown had been dressed with ground bone in what seemed to me a most extravagant manner and the plants were at least three times as large as mine, but they had a weak look from the first and I fancy that this over-feeding rather favored the maggots by leaving the wood soft and less fibrous than usual.

It is the habit of the carnation to grow and blossom at the same time, and it seems to me a mistake to attempt to get all the plant-growth in the summer and all the flower-growth in the winter. I always prefer to go into winter quarters with a medium-sized plant. I have used strong tobacco water with complete success against the cabbage maggot, but on a small scale always; it would possibly be a complete remedy in this case but would have to be used as a preventive, early in the season and perhaps several times, which would be a heavy task where several thousand plants are to be treated. Planting on new soil is indicated by my experience, but of course one season decides nothing. I have had no trouble with the stronger-growing varieties. I have not lost a plant of the Century or of the celebrated Anna Webb. The DeGraw, though by far the best of the whites, is still a very weak and unsatisfactory carnation. I find that it can be improved, however, by careful selection and growing in a natural manner.

LOTHROP WIGHT.

Lapagerias.

Few flowers are handsomer than those of the lapageria. The white one especially is perfect, and to see a few clusters of these beautiful flowers hanging from the vines is exceedingly pleasant to the eye. The peculiar bell-shape of the flower and its wax-like texture are unique and certain to attract attention. Probably there are some readers of these pages to whom the lapageria is a stranger, and who have never seen its beautiful and striking flowers, for but few of our florists grow the plant, and still fewer succeed in its cultivation. So far as I am aware there are only two or three places in this country where the plant is grown to any extent, and those are private. In Great Britain and on the continent it is much more frequently seen.

The reason the plant is met with but seldom here is owing partly to the fact that but few plants are offered for sale, and those are generally imported from England and consequently realize high prices. The principal reason, however, is the difficulty which appears to be met with in its cultivation, deterring those who have experimented and failed from again expending so much money in the purchase of two or three plants.

With all who grow plants for commerce, the question of dollars and cents must necessarily be of primary importance, and the cultivation of all plants which we know would prove a pecuniary loss must be dispensed with.

If the culture of the lapageria is looked

upon solely in this light, most of us will find satisfactory reasons for ignoring it, and turn with eagerness to other plants more likely to bring in the dollars for which we are all so zealously striving. Yet after a few years of experience I feel warranted in saying that the plant can be made to pay.

Even if it cannot be proven that this lovely climber is likely to be a gold mine to its owner, I for one would lift up my voice against its banishment from our greenhouses. Are we florists to become so sordid that plants of every kind must be examined only through gold and silver spectacles? Surely there are a few corners in our hearts yet untouched by the reign of Mammon, and we can find some spot in our multitudinous houses where we can afford to gratify our individual taste for the beautiful, irrespective of profit and loss.

To grow a lapageria well is neither a difficult nor a laborious undertaking. It is one of those plants which, given its needs, requires but little care to insure healthy growth; but if, on the contrary, one of its simple requirements is withheld, all the care and attention which can possibly be given would not suffice to escape failure. It was with some trepidation that I first commenced growing it, but a friend kindly offering a few hints, I adopted them, and complete success has resulted.

The plants must be well shaded from the hot rays of the sun through the late spring and summer months. Strict attention must be paid to this requirement. It must also, during the same time, be well syringed and watered, in fact, in hot weather, syringing may be used to advantage two and three times every day. It is from the neglect of these two points that many of these plants perish. The temperature through the summer should be kept as low as possible, and through the winter a range of 45° to 55° will be ample. The plants will grow better in every way, if planted out, and the soil should be a mixture of turfy loam and fibrous peat. A house facing the north will answer better than any other.

As the stronger shoots start from the root, they must be watched when they make their first appearance through the soil, and guarded against the depredations of snails, who seem to have a special liking for their young and succulent tips. See that there is good drainage, for, as the plant requires so much water, the soil would soon become sour, if this point is not attended to.

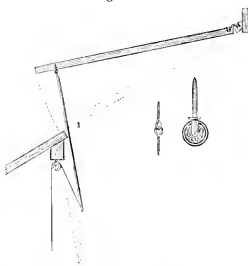
There are two varieties, the red and the white, the latter commanding the highest price. The propagation is usually by layers. If a small house, suitable for the purpose, could be planted with three or four lapagerias they would soon cover the roof, and as the amount of firing and water needed is at a minimum, the flowers, if sold, would soon compensate for the original expense. A. E. W.

Ruellia Macrantha.

A splendid Christmas-blooming, warm greenhouse plant. Flowers large, funnel-form, rose-purple, and four to eight open at a time, terminate each leafy shoot. With me it begins to bloom about the first of December, is at its best about the 20th, and lasts, in good condition, well into January. The plants are vigorous, bushy growers, one to three feet high, and like good living. I plant them out in summer, and lift and pot them in September. Although they may be successfully grown in a cool house, say 45° to 60° at night, a night temperature of 55° to 60°

suits them better, and in warm quarters they open their flowers better. Propagate from cuttings secured at any time, but mostly from the young growths that succeed the flowering period. It is not a plant you can get up a good stock of in a hurry; and I don't think it is one that would pay the florist to grow in large quantity; but florists who use mixed flowers will find it a desideratum. W. F.

Raising Ventilators.



We give herewith an illustration of a convenient method of raising ventilators on high-roofed houses. It is not new, but may not be familiar to many of our readers. The sash is kept open by belaying the cord to a knob or bitts screwed to the bench or a convenient post. This contrivance obviates the necessity (as is sometimes the case where houses are high and the more expensive sash-lifting machinery can not be afforded) of climbing up on the bench in order to reach the ventilator rod; which last should be rigidly avoided, as thereby more or less damage is sure to be done to surrounding plants by even the most careful person.

Propagating Roses.

Though it may seem presumptuous in me, I cannot help taking exception to some statements made by well known authorities on this question in recent numbers of the *FLORIST*. In regard to the saucer system, the writer, some years ago, had quite a number of saucers made, twelve inches in diameter, holding from fifty to seventy-five cuttings each, and in these rooted a large quantity of common greenhouse plants, during the winter and early spring months. The product made good plants; but, does it pay on a large scale? No! It may be right for the amateur or even the beginner who does well to try different methods, but to the man who wants plants by the tens of thousands it is too much like child's play.

That sunny bench is too slow a process in these days of low prices and sharp competition. We have to adopt methods for general crops, that will give us good stock in sufficient quantity and in the shortest time that it can be accomplished.

It is too broad a statement to call our propagating houses "sunless," or to imply that we take no advantage of the sunshine. On the contrary the careful propagator considers the morning sun a boon to his bed of cuttings. It is only when the temperature rises too high from the sunshine on the glass that we shade, and when the sun ceases to affect the temperature, the shading is taken off. It is well known to all propagators that too high a temperature in the air of a propa-

gating house is productive of a fungus, that will sometimes clean out a whole bed of cuttings in a single night. This disease is sometimes induced by injudicious watering, but the main cause is too high an atmospheric temperature while the cuttings are in process of rooting.

For the short time that cuttings are in a regular propagating bed, it is impossible that any change, chemical or otherwise, can take place in the foliage that will afterward injuriously affect the future plant. It is a very good thing to "back up old soil," only provided you back him up in the right way and place. The propagator who wants to bask in his rays indiscriminately may do so, all that he has a mind to; I prefer to keep cool.

Dec. 23, 1886.

E. FRYER.

Massachusetts Horticultural Society.

The schedule of prizes of the Massachusetts Horticultural society, offered for the year 1887, has just been issued. Nearly \$7,000 are offered, which is the largest amount appropriated for many years. Of this amount, \$3,500 is for plants and flowers, \$2,200 for fruit, and \$1,000 for vegetables. In addition to these prizes are a large number of special prizes, offered by individuals, for various classes of fruit and flowers. One of the most notable of the latter is the series of gold and silver medals offered by the General union, of Holland, for hyacinths, tulips, and narcissus, to be competed for at the March exhibition.

The prizes for roses in June amount to nearly \$500, and the prizes for chrysanthemums have been largely increased, the highest prize for the latter being \$100 for twenty plants in pots, with a second and third prize of \$75 and \$50, and about \$300 are offered in addition for other classes of chrysanthemums in pots.

The most notable horticultural event of 1887 will be the annual exhibition on the 13th, 14th, 15th and 16th of September. This exhibition will be held in connection with the annual meeting of the American Pomological society, and the immense hall of the Mechanics' association has been secured in order to make an adequate display of the fruits, which will be brought from all parts of the United States, and the collections of rare plants and flowers exhibited under the auspices of the horticultural society. The latter society offers, in addition to its regular fruit and flower prizes at this show, the sum of \$500, to be competed for by pomologists, competition being open to states, societies, granges, firms, and individuals throughout the United States and Canada. Three prizes of \$100, \$50, and \$25, are offered for the best general display of fruits of all kinds. Three prizes, in each instance, are offered for the best collection of apples, pears, peaches, and native grapes. Three prizes, of \$20, \$15, and \$10, are offered for the best collection of Russian apples and seedlings therefrom. Large prizes are also offered for the best collection of plums and sub-tropical fruits.

The complete schedule of the society can be had from Robert Manning, secretary of the Massachusetts Horticultural society, Boston.

M^r. CHARLES BATES, of London, agent of the well-known seedhouse of Vilmorin, Andreux & Co., Paris, registered at the office of the *FLORIST* Jan. 6. M^r. B. left London Dec. 10, and experienced a very rough and tedious voyage. He reports the prospects for this seed trade as brighter than for three years.

The Cut-Flower Trade.

Floral Tributes to Gen. Logan.

Many beautiful floral designs were seen at the funeral of Gen. Logan at Washington. A tribute from U. S. Grant post G. A. R. was an upright square of ivy leaves surmounted by crossed cannon of yellow flowers over which hovered a white dove. The base was star-shaped, containing a round center-piece of white, on which was lettered "U. S. G. 327, in blue immortelles. Another design was in the form of a huge pillow bordered with green. The center was a mass of white flowers on which was worked a representation of the national colors in violets and immortelles. This was the gift of the Chicago Union Veteran club.

A design presented by the ladies of Garfield hospital was a large pillow of Niphetos roses and pansies, resting upon which were crossed swords of violets caught together with a wreath of laurel. Mrs. Logan ordered this design to be carefully preserved. It was made by Small & Sons.

A gilt easel, upon which gracefully rested the emblems of faith, hope and charity—the heart of red, the anchor and cross of white—was sent by Senator Stanford. A large bow of delicate lavender ribbon, on which was worked an appropriate inscription, was attached to the piece. Another easel upheld floral representations of all the Grand army badges in yellow, red and black immortelles from the G. A. R. Post 327, of New York, sent a plateau of ivy leaves surmounted by crossed cannon and a drawn saber on which rested a dove. Below was the stars and stripes of immortelles, and a star of fresh flowers. Post 20 of Ohio sent a scroll of fresh roses and ivy leaves, with a drawn sword of immortelles across its face. The gift of Post 1, Philadelphia, took the form of a plateau of roses and camellias, with a border of similar, the whole surmounted by a cross and crown.

A Maltese cross of camellias and roses came from the Botanic garden. Senator Sewell sent crossed palm leaves, entwined with orchids and the choicest roses. Another tribute was a large pillow of camellias and La France roses, bearing the words, in immortelles: "In war victorious, in peace supreme." A 3-foot cross-crown of fresh flowers, lettered "Loyal Legion," was from that body.

An unique design was in the form of a desk, with a sponge-cup of immortelles and white flowers. On the lid of the desk was a representation of a manuscript, which bore an appropriate inscription. One arm of a beautiful white cross upheld a broken link, on which rested a white dove, bearing a card with the words: "The link broken here on earth will be joined again in heaven."

There was a score or more of other designs, some of most elaborate workmanship, and others very plain and unpretentious. At the funeral the floral offerings fairly covered the vice-president's desk, and also occupied a large part of the area in front.

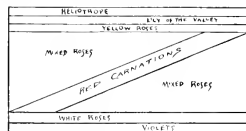
Anticipating Values.

A week or two before Christmas, price-lists of cut flowers were sent to retailers, with Christmas prices so high that they startled us. However, we all thought that a brisk demand was sure. When asked for prices on roses for Christmas, we had to quote the high prices, which, in Buffalo, so frightened the people that

sales of roses were exceptionally slow. Every one ordered teas, but on Christmas morning, to our disgust, one shipment from New York showed that the fancy roses were shipped at less than the high quotations, and teas were charged up to the top notch, thereby depriving us of profitable sales all around. I would like some one to suggest a preventive against a recurrence of such an unsatisfactory state of affairs.

Buffalo, N. Y.

EDWARD PAGE.



At a recent funeral I noticed a large piece new to me made in the shape shown by accompanying diagram. It is, I think, called "the spread," and is used to lay over the coffin. It produces a very rich effect. In the crosslines was appropriate lettering.

L. A. S.

Telegraph Rates.

The rapid growth of the shipping trade in cut flowers necessitates frequent telegraphic service, and the florist is now becoming a regular patron of the telegraph companies. Therefore the question of cheap telegraphic rates is an important one to the trade. The rates of the different companies vary so greatly that patrons frequently—through ignorance—pay one company double the amount they could have sent the same message for by some other company. All have their special "cuts" in rates, and the wise man will discover which company has the "cut rate" to the point he desires to telegraph. For the information of our readers we have secured message rates from all the leading companies having offices in Chicago and compiled the table herewith which shows the rates to many different points in comparison. If your city is an "exclusive point"—that is, where but one company does business—you can not benefit yourself, but if there are two or more companies you can save considerably by using the right office:

Chicago	B. & O. W.	Union	Mt. U. N.	Postal
10 cts.	10 words	10 words	10 words	20 cts.
Philadelphia...	20	20	20	25
Boston...	20	20	20	25
Baltimore...	20	20	20	25
Cincinnati...	15	25	15	10
St. Louis...	20	20	20	25
Pittsburgh...	20	20	20	25
New York...	15	20	15	25
Washington...	20	20	20	25
Buffalo...	20	20	20	25

In words only.

A glance at the above table will show at once the wide variation in rates. Another point—as to service—is that the messages received by the so-called Mutual Union Co. are transmitted by the Western Union Co. over the wires and by the operators of that company. The Mutual Union was long since absorbed by the Western Union, but the latter company uses the name of the former to cut rates against its competitors, being still enabled through its own office to charge a higher rate to those who are not aware of the cut rates. "A word to the wise is sufficient."

IN REPLY to A. S. M.: Run exhaust from boiler into water-tank, with valve to regulate the temperature.

W. A. B.

Cut-Flower Shipments.

When the shipper does not take necessary precautions to guard cut flowers from freezing in transit and they are spoiled when received by the purchaser, is he obliged to pay for them? Last Christmas a florist in Minneapolis received about \$25 worth of flowers from a grower in Illinois, that were all frozen when received. He promptly shipped them back, and the grower wrote him that if he did not pay for the flowers he would sue him, the flowers being shipped at purchaser's risk.

It seems to me that the purchaser had more cause to sue for damages, as he was the greatest loser, losing not only his profits but probably some of his customers by being obliged to disappoint them. I am not a retailer myself, hence am not speaking for myself, but I like to see justice done to all.

ATG, S. S.

[Our correspondent has struck a "lead" upon which volumes might be written, but we fear with little profit. Unless the shipper guarantees to deliver the flowers at their destination in good order we do not see how payment can be avoided. Freezing may have been the result of causes over which the shipper had no control. Expressmen are not always as careful as they should be. If a box of cut flowers is left a few hours on a railway platform with a Manitoba wave of 20° below zero howling around it, no packing as yet devised will keep the contents from freezing. The only evidence that would be at all availing would be that the packing was entirely inadequate, and was not as heavy as that usually employed by other shippers at that season. A vast deal of judgment is necessary in packing cut flowers at any season. The successful shipper takes all the circumstances into consideration. The static of the weather at date and the direction in which the flowers are going. In hard-freezing weather flowers should be shipped quite dry. A non-observance of above rule is a frequent cause of frosted flowers. Even then they are not safe, as the expressman may set the box against a hot stove and thus work ruin the other way. Precautions can be taken to greatly lessen the chances of spoilage, but as the circumstances of transit are not entirely under control it can not always be prevented. During severe weather flowers should not be allowed to be carted around in open express wagons but should be taken direct to the express car, and also met by the consignee at destination. The greatest danger exists when the box remains in cold depots, on platforms, or is carted around town in an open wagon. The impossibility of exactly locating the blame in such matters makes the equitable adjustment of losses a difficult matter. The Committee on Cut Flowers, of the Society of American Florists, took the ground that "the responsibility of shipper ceased when delivered to express company in good order." We should say "good order" requires reasonable packing. Ed.]

New York Retail Prices.

Perles, Niphetos and Soups, \$1.50 a dozen; Bon Silene, \$1.25; Mad. Cusin, \$2; Cooks and LaFrance, \$35 a hundred; Brides and Bennetts, \$25; Jacques, \$100; Papa Goutier, \$15; hybrids, \$100; carnations, long stems \$6, short \$1; hyacinths, \$1 a dozen; tulips, \$1; narcissus, \$1.50; callas, \$4; lilacs, \$1 a spray; poinsettias, 35 cents each; violets, \$3 a hundred; smilax, 50 cents a string; heliotrope, 75 cents for 25 sprays.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.25.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column \$14.00.

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No Special Position Guaranteed.
Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.
No reduction made for large space.The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.Advertisements for Feb. 1st issue must
REACH US by noon, Jan. 25. Address

THE AMERICAN FLORIST CO., Chicago.

Catalogues Received.

James Griffith, Cincinnati, O., wire
designs for florists. Alexander Bernaix
Villeurbanne, Lyon, France, roses. Wm. H.
Maule, Philadelphia, seeds. J. M.
Thorburn & Co., New York, trade-lit-
seeds. H. A. Dreer, Philadelphia, seeds
and plants. H. L. Wheatley, Altamonte,
Fla., trees and shrubs. James Hutchin-
son, Oakland, Cal., plants. Alex. Dick-
son & Sons, Belfast, Ireland, seeds, Plant
Seed Co., St. Louis, seeds; Samuel H.
Rumph, Marshallville, Ga., nursery stock;
Cole & Bros., Pella, Ia., seeds; J. C.
Lindley & Bro., Greensboro, N. C., nu-
rery stock; Wm. C. Beckert, Allegheny
City, Pa., seeds.

REGISTERED, recently, at this office,
Frank T. Emmerson and Mr. Daniel
DeCou, returning from California. Geo. S.
Haskell and James O'Neil, of Lan-
drecht's.

Mr. C. J. POWER, South Framingham,
Mass., sends us a photograph of a single
stalk of *Lilium candidum* bearing twenty-
two open flowers and thirteen buds. This
is certainly a remarkable development for
candidum. A houseful of such at Easter
would be doubly beautiful.

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940 Broadway, N. Y.

Price Lists mailed to applicants.

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Wholesale and Commission

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Branch, 38 S. 16th St., Phila., Pa.
Greenhouses, Creekkill, N. J.**THEO. ROEHRHS,**

WHOLESALE DEALER IN

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No. 153 West 31st Street,

NEW YORK.

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No. 11 West 27th Street,

Near Broadway, NEW YORK.

Consignee of the principal growers about New York.
Lilies of the Valley and Lilacs at all times.**Wholesale Markets.****Cut Flowers.**

	Boston, Jan. 10.	PER 100
Roses, Top	3.00 to 5.00	
" Niphetos	8.00 to 10.00	
" Perles	20.00 to 25.00	
" Hermès, La France	15.00 to 20.00	
" Bennett's	12.00 to 15.00	
" Nib.	20.00 to 25.00	
Lily valley	1.00 to 1.50	
Hyacinths	1.00 to 1.50	
Narcissus	1.00 to 1.50	
Tulips	1.00 to 1.50	
Bouvardia	1.00 to 1.50	
Carnations	1.00 to 1.50	
Callas	1.00 to 1.50	
Climbing	1.00 to 1.50	
Saxif.	1.00 to 1.50	
Adiantum	1.00 to 1.50	

	New York, Jan. 7.	
Roses, Bon Silènes	3.00 to 5.00	
" Perles, Niphetos, Surys	8.00 to 10.00	
" Hermès, Crests, Indes	15.00 to 20.00	
" La France	25.00 to 30.00	
" Herks, Bennett's, Brides	1.00 to 1.50	
" Papa Toaster	1.00 to 1.50	
" Am, Beauty	25.00 to 30.00	
" Jacques	1.00 to 1.50	
" Hybrids	3.00 to 5.00	
Tulips	1.00 to 1.50	
Callas	1.00 to 1.50	
Mignonette	3.00 to 5.00	
Saxif.	1.00 to 1.50	
Carnations, fancy, long	2.00 to 3.00	
Carnations, short	1.00 to 2.00	
Hyacinths	1.00 to 1.50	
Lily valley	1.00 to 1.50	
Violets	1.00 to 1.50	
Poinsettias	1.00 to 1.50	

	CHICAGO, Jan. 10.	
Roses, Perles, Niphetos	8.00 to 10.00	
" Hermès	15.00 to 20.00	
" La France	25.00 to 30.00	
" Bon Silènes	3.00 to 5.00	
" Indes	1.00 to 1.50	
" Bennett's	1.00 to 1.50	
Carnations, long	2.00 to 3.00	
Carnations, short	1.00 to 2.00	
Romans, narcissus	1.00 to 1.50	
Bouvardia	1.00 to 1.50	
Callas	1.00 to 1.50	
Lily of valley	1.00 to 1.50	
Saxif.	1.00 to 1.50	
Tulips	1.00 to 1.50	
Heliotrope	1.00 to 1.50	

WM. J. STEWART,

Wholesale Dealer in—

CUT FLOWERS

We offer as specialties for December,

Fine Roses, Lily of the Valley, Roman
Hyacinths, Violets, Adiantums,
Japanese Chrysanthemums and
Asparagus Plumosa.

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WELCH BROS.,

WHOLESALE FLORISTS,

16 Tremont Street, BOSTON, MASS.
We make a specialty of shipping choice Roses and
other Flowers, carefully packed, to all points in
Western and Middle States.
Return Telegram is sent immediately when it
is impossible to fill your order.

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Cut Flowers at Wholesale.

EXTENSIVE ROSE GROWERS.

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Greenhouses at Forest Glen, Cook County, Ill.

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Consignments solicited.

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(Mention the AMERICAN FLORIST.)

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NEW YORK.**GEO. MULLEN,**

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Wire, Designs, Stems, Wire, Tin, Foil, Immor-
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Flat and Standing Sheaves, all sizes com-
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wholesale rates.
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J. C. VAUGHAN,**Wholesale Cut Flowers**

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Only wholesale store in the U. S. open
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application. If you buy flowers write me.

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Location midway between East and West. 18 Rail-
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Roses a Specialty. Improved Methods
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Telephone connection with our greenhouses.**CUT FLOWERS**

The cheapest Cut Flowers at lowest market rates
shipped C. O. D. Telephone connection. Use A. F.
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Address

J. L. DILLON, BLOOMSBURG, PA.

Philadelphia.

George Anderson has a knack of getting large crops of roses when they are most needed. Heron & Nisbet take all he grows, an arrangement which evidently is an advantage to both grower and dealer. Mr. Anderson cuts more La France than any three growers around Philadelphia, and, taking the season through, they average better.

The Rowlandville nursery crops were "off." Mr. Evans, Sr., reports that all through December their "cutting" was light. Their rose Puritan is only brought to the city when ordered. The wholesale price at Christmas was 50 cents each. Opinions differ as to its possible value for winter flowering. It is a constant bloomer, judging from its character when growing. Its delicate perfume will recommend itself to the ladies. The class to which it belongs is the same as La France, Bennett, etc. (hybrid tea). It is the result of a cross between Mabel Morrison and Devonensis. The flowers nestle amongst the foliage, similar to Baroness Rothchild, its type amongst the hybrid remontants. Where white roses are used this will find a place.

Meteor, another new rose of which Mr. Evans controls the stock, is a rich velvety shade of crimson. It holds its color fresh and bright longer than any rose of that color that I know. Mr. Cusin is an older rose but it is not very well known about Philadelphia; only a very limited quantity of it is grown. It is not so large as many others when at the bud stage, but it will open full to the center, and is very beautiful in that state. It has merit, and should be grown more than it is. In color it is a beautiful fresh shade of pink, with the base of the petals a lighter shade.

The carnation crop is below the average. The Chester county growers who make a specialty of carnations, so far as learned, have not cut more than half the usual quantity from the same space, as they have done heretofore.

The Leptosyne maritima, a large yellow daisy-like flower, came in very useful at this season. H. I. Faust and Lonsdale & Burton are cutting it in limited quantities. It must be closely allied to the dahlia, for it has been placed in that genus by an eminent botanist. Who can give the history of this flower? It would prove interesting.

Violets, home grown, more especially the double variety, were scarce at holidays. New York and Boston supplied the greater portion of what was used. Single violets are the favorites here, and no very great effort is made by the growers hereabouts to supply what demand there is for doubles, and they have been stricken by the disease in most of the places where they have been grown, so that the combination of the two causes has discouraged the grower. E. L.

Boston.

The "Gardeners' and Florists' Club of Boston," starts off with a membership of about 120. The first regular meeting was held on Friday, Jan. 8. The hall was packed and great interest and enthusiasm prevailed. Permanent officers were elected as follows: Pres., Wm. J. Stewart; Vice Pres., A. P. Calder; Sec'y., M. H. Norton; Treas., Jas. O'Brien; Ex. Com., Robt. Farquhar, Wm. E. Doyle, W. A. Manda.

The next meeting will be on Friday, Jan. 21, when the revised constitution and by-laws will be presented for discussion.

OUR CLUBBING LIST.

THE AMERICAN FLORIST and THE GARDENERS' MONTHLY one year for \$2.50.
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I can now ship Camellias in lots of 25, to 50 or more, well packed in wood boxes, single layers, 25 in a box. For Prices, etc. address

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offers as specialties from one of the most celebrated European collections of
CYCLAMEN PERSICUM GRANDIF. MAGNIFICUM,
mixed in all the different colors—red, white and rose, white and violet, white and red, rose, crimson, crimson, scarlet, etc.

300 seeds \$1.25
1,000 2.00
2,000 3.00

JESSIE.

We introduce the Jessie Strawberry, and supply plants to the trade. Send for colored plate and copy of Green's Fruit Grower. Guide to Grape Culture, etc. Guide to Strawberry Culture, etc. Green's Fruit Grower, 50c. per year, and "How to Propagate and Grow Fruit," 50c., all for seeds. Address GREEN'S NURSERY CO., Rochester, N. Y.

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BOUQUET PAPERS, ETC., ETC.

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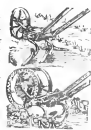
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MONON ROUTE
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Hot Water Circulation.

I think that Mr. May hit the nail on the head in Jan. 1 issue. The greatest trouble comes, more or less, from imperfectly-arranged pipes. I was troubled a few days this winter by the water in one of the flow-pipes circulating one-third of its length only—that is, the water returned in the flow pipe, the hot water on top, and the cold below, but still in the same pipe. On careful examination of the pipe, I found that it had settled a very little, and thus caused the trouble. As it was impossible to raise the pipe at that time, I drilled a hole in it at the point where it had settled, and you could easily hear the air coming out. At the same moment circulation began, the pipe became full of water again, and the tanks emptied, which were refilled, and further trouble saved. O. R. DEMMLER.

IF IT IS necessary to change the air in rose-houses once in twenty-four hours, by ventilation, what course should be pursued under circumstances stated below? The average temperature for the past four days has been zero (F.), the lowest to below, with bright, clear weather, and quite brisk west and northeast winds. Will not the laps in the glass let in all the fresh air that is needed—in fact, won't it do so for nearly all winter? Saratoga Springs, N. Y., Dec. 6, '86.

VIOLET VICTORIA is giving excellent satisfaction to Mr. D. S. Heffron, Washington Heights, N. Y. It blooms freely, on very long stems, and meets with quick demand from flower buyers.

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DAHLIAS IN STOCK.

50 colored varieties Show & Pompano	Box	\$1.50	\$10.00
Clematis, 12 fine varieties, monthly	do.	.50	1.00
Tuberose, Pearl and common dbl.	do.	1.00	2.50
Geraniums in good assortment	do.	1.00	2.00
Monthly Roses, 4 in. pots, strong	do.	1.50	10.00
Moss Roses, strong, 2 yr. for plants	do.	1.00	6.00
Climbing Roses, 2 yr. in variety	do.	1.00	6.00
Downing's Glooscheery, 2 yr. strong	do.	1.00	6.00

All kinds of bulbs, greenhouse, bedding, fruit and ornamental plants, at lowest rates. Correspondence solicited.
F. A. BAKER, Bloomingtown, Ill.
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Pearl Tuberose Bulbs

First size, 4 inches and over in circumference, \$18 per 100; 2d size, 3 to 4 inches in circumference, \$8 per 100; 3d size, 2 to 3 inches in circumference, \$4 per 100. All good sound flowering bulbs. Geraniums, best bedding varieties, double and single, 3-inch pots, strong plants, \$1 per 100. Double daisy Victoria, 2-inch pots, \$5 per 100. Callas, 3-inch pots, \$1 per 100; good strong plants from boxes \$2 per 100; 3d at 100 rates.

A. R. ALDRICH, FLORIST,
Springfield, Ohio.
Mention American Florist.

Double white Primulas, 3 in. pots, 4 in.	Per 100	\$5.00
Vines Alba, all rose and posy 3 in. pots, 4 in.	do.	\$1.00
Geranium double and single from 2 in. pots	do.	2.00
Geranium, Bon Schure from 4 in. pots	do.	3.00
English Vines, strong bushy	do.	8.00
Chrysanthemum, 4 in. pots	do.	12.00
Bouvardia, strong roots for propagating, 6 in.	do.	2.00

Pearl Tuberose Bulbs—fine blooming bulbs—\$12.00 per 100.
Samples of Tuberose bulbs by mail for 10c in stamps.
ADDRESS: A. R. REINEMAN & BRO.,
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The following varieties of new crops should be sown during January to insure strong, thrifty stock for Spring sales.

	Trade pkt.	Oz.
Antipopeus Valtich	do.	15
Aster, choice mixed	do.	3.00
Calendula Prince of Orange	do.	1.00
Marigold	do.	.50
Centaurium Gymnocarum, 1000 seeds, 3c	do.	1.00
Campanula medium, 1000	do.	1.00
Clematis	do.	1.00
Cornwall Scutellaria	do.	1.25
Geranium, Apple (Tree) 100 seeds, 3c	do.	2.00
Lobelia Crystal Palace speciosa	do.	1.00
Campanula	do.	1.25
Speciosa mixed	do.	1.00
Maurandia mixed	do.	2.00
Magnolia, Bird's Mammoth	do.	2.50
Mil's Spiral	do.	2.50
Michael	do.	1.50
Amorpha	do.	.50
Potamo, Dreer's choicest mixed, 1000	do.	1.50
Philos, Nana Completa, mixed	do.	1.50
Grandiflora, mixed	do.	1.00
Sunray	do.	1.50
Pyrolanthus aureum	do.	1.00
Shocks, Ten-week, mixed	do.	3.00
Shocks, white	do.	3.50
Torenia Fourmott	do.	.50
Budlion	do.	.50
Verbenas, Dreer's choicest mixed	do.	1.00
Blue mixed	do.	1.50
Candiblossa white	do.	3.50
Coreopsis, scarlet	do.	3.00
Vinca, choice mixed	do.	1.00
Alba oculata	do.	1.00
Rosea	do.	1.00
Alba Fura	do.	1.00

Many of the above are saved at our Nursery, and we recommend them for quality and purity. Trade list will be ready January 30; mailed free.

HENRY A. DREER,

Seedman and Florist,

211 Chestnut Street, Philadelphia.
Mention American Florist.

ROSES.

We offer FINE PLANTS from 2½-in. pots in excellent condition at these extremely low prices:

	Per 100	Per 1000		Per 100	Per 1000
Perle des Jardin	\$4.00	\$35.00	Souvenir Un Ami	4.00	35.00
Sunset	5.00	40.00	Niphotos	4.00	35.00
La France	5.00	45.00	Camocens	4.00	35.00
Catherine Mermet	4.00	30.00	Safrano	4.00	30.00
M. Niel	5.00	45.00	Bon Silene	4.00	30.00

Hybrid Perpetual, 60 varieties, \$5.00 per 100; \$50.00 per 1,000.

Also Bennetts, Brides, Am. Beauty, and 50 other varieties at very low rates.

VERBENAS.

We have an enormous stock of Verbenas, including the Mammoth Varieties.

	Per 100	Per 1000		Per 100	Per 1000
Verbenas, 28 varieties	\$3.00	\$25.00	Verbenas, rooted cuttings	1.00	9.00

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	Per 100	Per 1000		Per 100	Per 1000
Colons	3.00	25.00	Hydrangea, T. Hogg and Otaksa,		
Chrysanthemums, 80 very finest kinds	5.00	45.00	3-in. pots, fine stock	5.00	40.00
Dahlias, dug roots	7.00	60.00	Geraniums, assorted	4.00	35.00

And a full line of Greenhouse Plants of all kinds.

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The General Bulb Co. SOLE AGENT FOR

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Also Early and Prime Tobacco Bed Plants, Farmers, Gardeners and Florists use the Patent Protecting Cloth, originated and prepared only by undersigned. It is equal to glass sash, and costs but a tenth as much. In Cold Frames and Hot Beds, and for Tobacco Plant Beds has no equal. Protects from frost; promotes growth and ripening; does not shrink or decay rapidly. Widely known and used by leading growers. Details for a 3 and 5 cent per yard—5 inches wide. Send for Circulars, Samples, etc., free. U. S. WATERPROOFING FABRIC CO., 25 South St., New York.

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Write for new descriptive catalogue. Very complete on the best novelties in flowers and vegetables.

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SMILAN SEED.

MY OWN GROWING.

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NOTICE.

Florists, Seedsmen and Nurserymen

Should all have our catalogue. It contains goods that all need. If you have not received a copy of our last (December) issue send for one, with some evidence that you are engaged in the trade, as we never place this list into the hands of amateurs.

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WE SHUN NO EXPENSE to obtain the best and most reliable strains, and we are not afraid to pay a good price for a good strain; as such, Florists may expect to be well served when they send their orders to us and to obtain their money's worth, even if once in a while our quotations appear high. When properly treated our Seeds will give satisfaction to every one. ADDRESS,

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New York.

An enterprising plantman is growing specimens of the Imperial Silver tree *Calceolaria argentea* at New Rochelle.

John Reid, of Jersey City Heights, who won his first bunches with the Fire and carnation, is now "considering the lilies" with profit.

Mr. John Thorpe improves very slowly. Though he is now able to be up he can walk but a short distance at a time. He is still weak and troubled with sleeplessness.

A few Christmas roses, gathered in Bergen county, N. J., brought their weight in gold in fashionable floral shops, where anything that is "English, you know," is almost priceless.

Mr. Will Allen, the popular wholesale dealer, celebrated the eleventh anniversary of his wedding on the evening of the 28th ult., by a well-appointed dinner party, the floral arrangement of which was very elaborate.

Messrs. Siebrecht & Wadley expect to hold a grand exposition of orchids in March, when the rarest plants of the Rose hill conservatories will be shown, besides the choice orchids of some private growers. The show will be exceedingly interesting and instructive and will no doubt avert the orchid fever, which is already running high.

Great annoyance was experienced both Christmas and New Year's from some bad practices in the flower business. It is a notorious fact that many of the larger growers keep their flowers from a week to ten days before every holiday, placing them in cellars and vaults, that they may bring the fancy prices demanded at those times. The florist is the sufferer, for he is deceived in what he purchases, getting stale stock which brings an avalanche of complaints from his customers. Growers run up their prices to such a rate Christmas, New Year's and Easter that I know florists who have returned flowers to the wholesale dealer because nothing was to be made by handling them.

HENDERSON, KY.—Wm. O. Fuller succeeds Chas. H. Dencke, florist, here.

CANTON, ILL.—Miss Jennie E. Keeling is starting into the florist business here.

NAUCK, N. Y.—Mr. Tunis DeFew is now erecting a new house, 100x6, to be used for propagating.

TRENTON, CANADA.—Fire in the green-houses of John L. Hickey recently caused a damage of \$200, principally on plants.

DANVILLE, ILL.—A. W. Morgan has raised a new geranium which has been named Mrs. Andrews. It is highly spoken of by the local press.

MILWAUKEE. E. P. Dilger's boilers gave out last week, and before repairs could be made a couple of houses were chilled. Damage was slight, but came very near being considerable.

SPRINGFIELD, O.—McGregor Bros. recently buried their aged mother. C. A. Reesor lost his son, George, Dec. 30, aged 20 years. These brethren have the sympathy of the fraternity hereabouts.

J. M. G.

WIRE & DESIGNS

Free, Free. Griffith's Mammoth New Catalogue ready by Dec. 30. Over 250 Engravings. Send for it.

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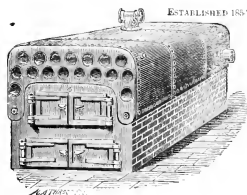
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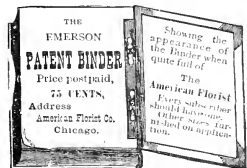
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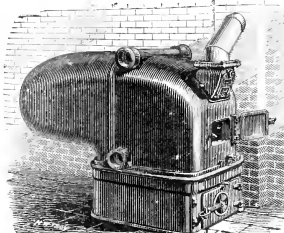
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The American Florist Company's HORTICULTURAL DIRECTORY

—OF THE—

United States and Canada.

THE AMERICAN FLORIST COMPANY

Have in preparation and will publish early in 1887, a **TRADE DIRECTORY**, giving a very complete list of the FLORISTS, NURSERYMEN and SEEDSMEN of the United States and Canada. We have purchased from Mr. Isaac D. Sadler of Philadelphia his Horticultural Directory of the United States, with correction sheets, Supplements, etc., and from the excellent facilities at our command, have added to and CORRECTED his list and we now have a list as near perfect as it is possible to get. The latest street and number of those living in cities will insure delivery of catalogues, which have never before reached their destination through defective address. Many, whose names appear in the old directories have been dead or out of business for years. These we have carefully eliminated from the list.

A VALUABLE FEATURE

Of the new directory is that it will specify the **SPECIAL BRANCH OF THE BUSINESS** in which the party is engaged, as shown by the following key:

- F. Florists who both grow and retail.
- F. Gr. Florists who grow only.
- F. St. Florists who are dealers only.
- W. F. Wholesale dealers.
- N. Nurserymen.
- N. F. Nurserymen and Florists.
- S. Seedsmen.
- S. F. Seedsmen and Florists.

The value of this specification will be readily seen without any argument by all who mail catalogues. As to the correctness of same, we will state that the largest share of our information has been obtained from the business card letters heads of the PARTIES LISTED, which have been received by us WITHIN THE PAST YEAR and may be relied upon as 100% information.

The letter signifying the party's business is placed in a column TO THE LEFT OF THE NAME; it is the first thing to strike the eye when addressing, and the particular branch of the trade YOU WANT TO REACH can be easily selected in the least possible time. We shall make the

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Index to Advertisers.

Adams C. Thompson	217	LeClair, J. F.	230
Advertising rates	211	Livingson's, A. W.	230
Allen, A. R.	214	Long Bros.	217
Allen S. L. & Co.	213	McAllister, F. F.	217
Allen, W. H.	219	McCarthy, N. F. & Co.	211
Allen, W. S.	214	McFarland, J. Horace	230
Bailey, F. A.	214	McGreer Bros.	219
Bayer, J. M. & Co.	214	Maule, Wm. Henry	217
Beatty & Co.	217	Mayer, J. N.	217
Blanc, Albert	217	Michael Plant & Seed Co.	215
Blanc, A.	218	Milner & Hunt	218
Brown, James	217	Monroe, Walter	215
Bruckenthal & Co.	217	Mullen, Geo.	217
Bronckman & Peter	217	Peale, W. C. & Bro.	217
Burpee, W. Allen & Co.	217	Pennock, Chas. E.	211
Cannedy, J. D.	217	Parkins, John J.	211
Clark Bros.	217	Parkins, J.	211
Clark, W. W.	217	Phelps, H. H.	216
Currie Bros.	217	Piercy, Josephus	216
De Graft Bros.	217	Plyer, W. C.	217
Desmond, Wm.	217	Reed & Keller	216
De Veer, J. A.	217	Reinmann, A. R. & Bro.	217
Devine's Flower Works	217	Rensig, Chas.	215
Dickson, Albert	217	Rindland, Benjamin	215
Dillon, J. L.	217	Roehrs, Theo.	211
Dunlop & Conrad Co.	217	Robker, August & Son	215
Desor, H. A.	217	Sator, John A.	215
Dudley, J. W. & Son	217	Schlegel & Fotherill	217
Elliot, B. A. & Co.	217	Schiffers Bros.	216
Ernst, H. M. & Co.	217	Schulz, Jacob	216
Fewkes, Edwin & Son	217	Seal, Thomas E.	216
Fink & Co.	217	Seibert & Wadley	217
Frost-Klein Florist Co.	217	Stantians, Wm. & Co.	216
Gardner, M.	217	Spencer, W. H.	216
Green's Nursery Co.	217	Stark, Chas.	216
Griffith, Jas.	217	Steffens, N.	215
Haines, S. V. & Co.	217	Stewart, Wm. J.	211
Hales, H. W.	217	Stinson, J. M.	211
Hall, E. & Son	217	Storrs & Harrison Co.	216
Hallack, V. H. Son, & Thorne	217	Straps, C. & Co.	211
Hammond & Hunter	217	Studer, N.	217
Hammond's Sing Shot	217	Thompson, Geo. & Sons	215
Henderson, Peter & Co.	217	Tule, J. W.	215
Hennecke, C. & Co.	217	U. S. Waterproofing	215
Hill, J. C.	217	Van der Schout, R. & Co.	215
Hitchings & Co.	217	Van Leeuwen, A.	216
Hosker, H. M.	217	Vandenberg, J. C.	215
Ives, J. H.	217	Wants & For Sale	216
Jensen, Ed.	217	Water, H.	216
Jewett, Z. R.	217	Weathered, Thos. W.	216
Johnson, C. H.	217	Welch Bros.	216
Keeley, John	217	Wells, S. Mfg. Co.	216
King, James	217	Williams, H. W. & Sons	214
Kirschner, A. C.	217	Wilson Florist Co.	216
Kirk, W. C.	217	Willing & Co.	216
Kirshin, C. A.	217	Wood, J. C. & Bro.	216
La Roche & Stahl	217	Young, Thos. Jr. & Co.	211

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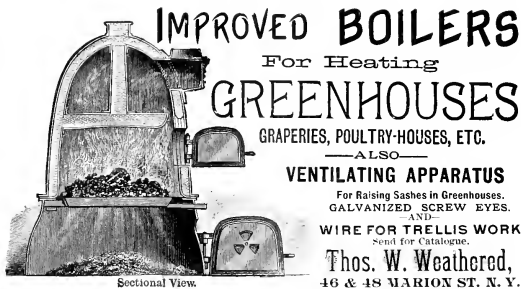
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Sectional View.

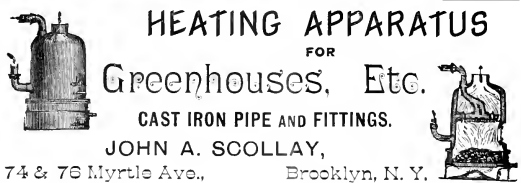
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JOHN THORPE,
Pres't Society of American Florists.

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CONVENTION OF THE SOCIETY OF AMERICAN FLORISTS, 1
PHILADELPHIA, AUG. 26, 1886.
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A collection of Chrysanthemums excels anything which has come under your committee's notice in this class as regards color, form, and perspective, most truly representing the respective flowers they are intended to delineate.

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We received the certificate of merit from the society of American Florists, at their Convention held at Cincinnati, Ohio, in 1885, also, Convention of the Society of American Florists, Philadelphia, Pa., Aug. 26, 1886.

COMMITTEE'S REPORT:
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THE AMERICAN FLORIST



America is "the Prow of the Vessel; there may be more comfort Amidships, but we are the first to touch Unknown Seas."

Vol. II.

CHICAGO AND NEW YORK, FEBRUARY 1, 1887.

No. 36.

THE AMERICAN FLORIST

Copyright, 1887, by American Florist Company
Entered as Second class Mail matter.

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THE AMERICAN FLORIST COMPANY.

GENERAL OFFICES, 54 La Salle Street, Chicago.

EASTERN OFFICE,
Room 81, Vanderbilt Building, New York.

All communications should be addressed to the
general office at Chicago.

SOCIETY OF AMERICAN FLORISTS.—Robert
Craig, Philadelphia, Pres.; J. C. Vaughan, N. Y.
Pres.; M. A. Hunt, Treas.; Edwin Lonsdale,
Chestnut Hill, Philadelphia, Sec'y. The third
annual meeting at Chicago, August 10, 17 and
18, 1887.

The Executive Committee.

The Executive committee of the S. A. F. held their winter session at Chicago Jan. 12-13. There were present Messrs. Craig, Lonsdale, Stewart, May, Siebrecht, Jordan, Hill, Hunt and Vaughan. Absent, Messrs. Thorpe, Murdoch, Halliday and Whitnall. The programme for the next annual convention was completed. Many important matters were discussed and the programme arranged embraces subjects of the greatest practical value to every member of the craft. The subject of hotel headquarters and location of convention hall was also considered. We expect soon from Secretary Lonsdale the complete programme for our readers.

A Warning.

So many complaints from various sources, have been made by amateurs and others who purchase plants largely of the various florists throughout the country, that much of the stock sent out by them is untrue to the name it bears, that the Executive committee of the Society of American Florists, recently convened in Chicago, found it impossible to ignore the demand that something be done to check this growing evil, and save purchasers from the disappointment and loss caused thereby. Consequently a liberal appropriation was made by them, for thoroughly testing the plants sent out by every firm in the country doing a retail catalogue business.

The "modus operandi" by which this is to be accomplished is known only to the committee, but that it will be searching, thorough, and conducted without fear or favor is fully guaranteed by the character of the gentlemen composing that body. The result of their investigation will be reported to the society, and it is to be hoped, to the world, at the next annual meeting at Chicago in August next. G.

Gloxinias.

BY WILLIAM FALCONER.



These are capital and easily grown summer-blooming plants, but cannot be had in bloom in quantity in winter, without, I should think, more trouble than they are worth. During the summer months, however, they bloom very profusely, and there is a beauty, richness and commonness about them that must always command respect. And one great point in their favor is that seedlings raised in spring come into bloom when four or five months old, and the "roots" are good for several years.

I raise them in quantity for summer flowers. The first batches to come in between April and the middle or end of June are grown in pots; the main summer crop to come in from June till the middle or end of September, planted out in cold frames; after that, a few seedlings in pots that bloom into October.

I prefer seedlings of a real good strain to named kinds, and erect rather than pendant flowered sorts. Among seedlings we get all sorts of colors—rose, crimson, purple and violet—peculiar to the race; selfs, shaded, streaked and spotted. I have not yet seen a pure white gloxinia, but the Suttons of England advertise one they call Snowflake, as such. In December '84 we imported from London some forty of the finest named varieties—one tuber of each—and paid five shillings a piece for them. They are gorgeous, but for vigor and profusion I prefer seedlings, and these in many cases are just as brilliant as the named sorts. Plants in pots bear seeds freely;

those planted out in frames, sparingly. For earliest crop we select the tubers that have been at rest the longest and have started most to grow; pot these about Christmas or in January, using 5, 6 or 7 inch pots, according to the size of the "roots." Keep in a brisk temperature near the glass, and water sparingly. When roots begin to run and tops grow, a little bottom heat assists them wonderfully. A great thing to observe in gloxinia growing is, from the time they start into active growth till they begin to flower, keep them growing vigorously and unchecked. Other successions in February and March are potted and started. If, about the end of March, it is evident that those that still remain unpotted are determined on starting into vigorous growth, we pot or box them off, but otherwise keep them as inactive as is consistent with their good health.

Seeds sown in February or March in a warm greenhouse, germinate in nine to fourteen days, according to conditions. These seedlings, if pricked off, transplanted into boxes or potted, and re-potted in due time as they require it, and kept growing vigorously and unchecked, should begin to bloom in June, and most of all of them will come in in July. But by a little humoring we may retard or accelerate them as we desire.

In raising seedlings bottom heat has a powerful, invigorating influence on them. In summer we fill a 15-sash range of frames with gloxinias just as you would with violets or pansies, only plant a little farther apart and away from the glass. This we do in May or June, after emptying the frame of lettuces or bedding plants. The plants set out are from boxes or small pots. Put on the sashes, keep shaded, ventilate in favorable weather, and never let water stand on the leaves. Here they bloom freely but no better than they do in pots, and grow ranky—too much so sometimes. The main point in favor of planting out in frames is, very little bother in attending to them. The sashes are our best and tightest; even then in wet weather they leak a good deal, and wet the plants so badly that we have some trouble in drying them.

I use common, light, rich, porous soil, with little or no manure in it; rotted leaf soil is a good addition. A proportion of peat is often recommended. Now, peat such as we get here, will, if used as potting soil, become a pasty mass in a short time, and then fine roots die in it. Peat of any kind is not necessary, and poor peat is injurious.

When the tubers are starting into growth, water sparingly; as growth advances, be proportionately liberal; as growth declines, lessen the supply; and when the foliage ripens, stop watering altogether. During their five or six

months' rest they don't need a drop of water. I never found manure-water to do them any good. While gloxinias like a warm, moist atmosphere; they very much dislike being wetted overhead.

Gloxinias should be shaded from sunshine during the whole period of their growth; indeed in warm summer weather, although our frames are ventilated day and night, in addition to the paint-shading on the sashes, I spread a sheet of calico over them, as without it the flowers and leaves wither considerably. While gloxinias enjoy shading from sunshine they should be grown near the glass, and have free ventilation but no draft.

In pots mulching is not necessary, but in the case of those that are planted out, of great importance. Wet cow manure rot the leaves; ordinary rotted manure, or half-rotted leaves, soon becomes part and parcel of the soil and useless as a mulch; salt hay harbors crickets; tobacco stems chopped a little are good enough so long as they are dry, but when wet they rot the leaves that lie close onto them. Sphagnum moss is the best mulching material. Don't mulch about the crowns.

If enervated by neglect or drought, thrips and red spider prey on them; then they are useless for a season. If repeated fumigations and tobacco mulchings check the thrips, but hinder not the spider. Sponging gloxinia leaves is feasible enough on paper, in practice rather different. Rust sometimes appears as brown blotches on the leaves of old plants. It is caused by root injury induced by neglect or drought. If it appears on newly started plants, cut off all affected parts and promote a fresh start; if on full-leaved plants, cut them over and let the tubers rest for a season. If the rust appears another year, throw them away. Sun-scalding, caused by sunshine on the leaves when they are wet, can be avoided.

When the plants have ceased blooming in the frames—say about the end of September or first of October—I cut them over close to the ground, lift and save the tubers. The frame is then ready for a winter crop of lettuces or flowering plants. As those in pots ripen and are dried off, they are laid aside till we lift the frame "roots," then we shake out the pot plants, put all the tubers together, and according to their age and ripeness. We then store them in one deep, close against each other and tops up, on shelves put up book-case fashion, one above the other, inside at the warm end of a north-facing greenhouse pit, where the night temperature averages 55° to 60°, and we fill up to the level of the tops of the tubers with pit sand. In this way they keep splendidly, and seldom show vigorous growth before February. Mice or rats don't destroy them as they do caladiums.

American Beauty.

As the season for propagating our next season's stock of roses approaches, we very naturally begin to question ourselves as to which of the kinds we have grown the past year are the most profitable? Which rose shall I retain and which shall I discard? Opinions apparently differ as to whether or not American Beauty is a profitable rose as at present grown. Sometimes we hear that the large growers around New York (who are naturally supposed to know, having grown it more extensively than those in other sections of the country), have come to the conclusion that it does not pay, notwithstanding the enormous

prices it is said to have brought there, and that henceforth it will be grown in smaller quantities. Then again some one tells us that it is the best rose for cut flower purposes sent out during the last twenty years.

I notice that some of the English growers, Wm. Paul for instance, class American Beauty among hybrid perpetuals; and recommend it as being *valuable for forcing*. From what I have seen of it grown as a hybrid, I think it will produce an abundance of flowers, but that they are likely to have short stems and for that reason will be disqualified as a high-priced rose; while grown as a tea it will produce shoots seven feet long that are absolutely blind. It is true that by tying them down they will break, and in all probability produce flowers, but so much time will have elapsed that it is a serious question whether the rose will pay for the space it occupies even if its flowers, when you get any, do bring a good price.

However, before discarding this really beautiful and desirable rose I would like to hear from some of the readers of the *FLORIST* as to their experience with it as a cut-flower rose. If the growers' receipts demonstrate that it can be made to pay, perhaps they will oblige us by telling how it is handled to produce this desirable result.

ROBERT SIMPSON.

Boston.

Trade in general is fair.

Hybrids of good quality are now coming in.

The "Gontier" is already a very popular here. It will give the Bon Silene a hard tussle.

Cyclamens are coming forward again as favorites. Those now in the market are a wonderful improvement over those of a few years ago.

At this season the florists' windows look their best. At no other time of the year can such a variety of choice and beautiful flowers be obtained. Glorious hybrids, purple orchids, graceful anemones, brilliant carnations, tulips, daffodils and nasturtiums, with an abundance of violets, lily of the valley, pansies, myosotis, cyclamens and lilies. These are but a few of the attractions that now fill the windows and show cases of the stores.

The second meeting of the Gardeners' and Florists' club, of Boston, was held on Friday evening, Jan. 21. James O'Brien offered resolutions on the death of Alex. Greenlaw, which were unanimously adopted. The Executive committee reported a constitution and by-laws, which, with some amendments, were adopted. It was decided to appoint a committee on essays and discussions. During the evening some fine specimens of Papa Gontier roses, sent by Mr. John Henderson, of Flushing, were exhibited, and attracted considerable attention. At the close of the meeting the roses were disposed of by auction for the benefit of the club. The next meeting of the club occurs on Wednesday, Feb. 9. The membership is now 175.

On Friday, Jan. 20, about thirty prominent florists paid their last sad tribute to a valued friend and associate by attending the funeral of Mr. Alexander Greenlaw. There will never be another Greenlaw. He was a man of pronounced individuality, whose very bluntness and stubborn self-assertion constituted a charm. He had the remarkable faculty of drawing about him those who were his opposites in almost every sense, and indeed his most intimate associates were generally those with whom he had had the most bitter controversies.

He was a Scotchman of the old school, of sterling honesty and firm convictions, with a kind and sympathetic heart, which, when he had been impulsive and had spoken hastily, would not let him rest till he had made amends and been forgiven. He was always on hand when there was a good time in progress, and a presentation or an excursion without Greenlaw was a rarity. He conducted a profitable florist business at the south end for many years, but during the past two or three seasons has devoted his time to growing for the market, at his greenhouses in Braintree. His age was 61 years.

W. J. S.

Ventilation.

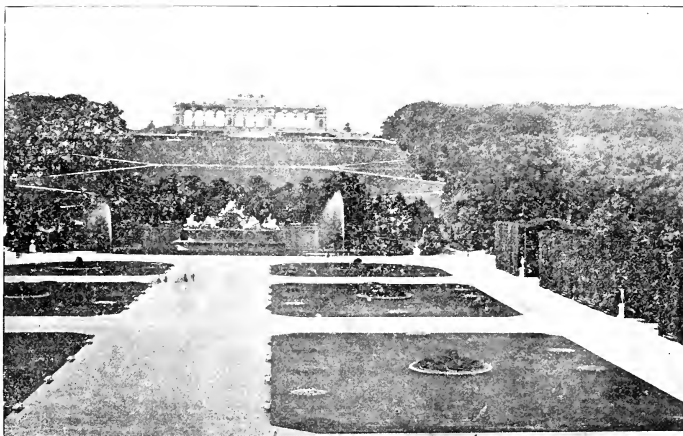
Your correspondent, "Saratoga Springs," asks "if the laps in the glass will not let in enough fresh air for nearly the whole winter?" Yes, but I find that a gentle circulation of fresh air is best obtained by having the ventilators open at the ridge; a small crack open in such weather as he describes will be all that is necessary. In obtaining this constant circulation lies the great merit of opening the ventilators at the apex of the roof instead of the reverse way—as is so generally practiced—for as the overheated air naturally rises to this point it can thus more easily escape. I advise all intending builders to hang their ventilators on this plan; experience will soon prove to them its great value.

J. N. MAY.

Mid-Winter Floral Fashions.

BY OUR NEW YORK CORRESPONDENT.

The richest room arrangements are made with flowers of one tint and their several shadings, this being decided to best harmonize with upholstery, or to contrast with it as the case may be. Bougainvillea is favorite at present when an expensive display is made; it of course must have the most careful handling, or it is a failure. Thorley did a wedding decoration yesterday which was chaste. The drapings and upholstery of the drawing room where the ceremony took place were of a pale lemon color, the walls being artistically tufted with broad satin of this tint. Mirrors were framed in cut crystal and the chandeliers were of the same sparkling material. From the central chandelier chains of bougainvillea were draped across the room to define the space set apart for the bridal party. They stood under an arch formed by specimen plants, with one of the finest and most delicate of exquisite arrangement, the different shades of green being most beautifully displayed, and the drooping fronds and towering leaves so intermingled that they lapped gracefully, and formed a lacy walled bower. Some of the finest of these plants were loaned from the superb collection of S. J. Burnham & Co. The bougainvillea was drawn on a silver-thread wire and fastened on the top of the arched frame of the mantle mirror, where it was held by a rich blooming plant of cattleya which was surrounded by branching lilies, longiterna. The vine was delicately draped around the chandelier and its bracts of purple tissue paper, like foliage, contrasted finely with the light from crystal prisms. Sprays of speckled oncidiums fluttered near the globes. The chain across the other way was attached to an arched cornice made of lilies over the door which was a large double one and had a small half curtain of bougainvillea looped high on one side with a cluster of lilies and cypripediums. There were panels of white tulips in spaces on



VIEW IN SCHÖNBRUNN PARK, NEAR VIENNA

the wall, made of the satin-like buds, and fringed with small fronds of adiantums.

The dining-room which was an extension was decorated with roses. There was all the shades of pink, in *Mermets*, *La France*, *Souls* and *Rou Silene*, deepening down to *Papa Goutier* of which several hundred were used. The mantel was banked in the prevailing style of a slope running high at one end and cutting down sharply at not quite half the length. This was done with *Goutiers* which were fringed at all edges with a wide band of their own foliage. A vase of iridescent glass held long stem American Beauties and stood on the end of the mantel not banked.

The plaques that decorated the walls of Delmonico's for last Patriarchs' ball were extremely elegant, particularly those made solely of foliage. There were garlands attached to these ovals, many of which were five feet long, that hung over with careless grace. Among the most effective of this greenery was the long garland of *smilax* and *lygodium scandens* which are so successfully and symmetrically grown together by Mr. William Wilson, at Astoria. The plaques formed of rose bunches were shorn when the german was danced as the clusters tied with narrow ribbons were presented as favors.

The valenced baskets of which we had a picture in the number of Dec. 15, are having a great run for souvenirs mostly, or to place on a tripod or piano. They are too high for table centre-pieces and too gaudily decked with ribbon. Lilac baskets which are very favorite for gifts, are trimmed with lilac—a valence and handle bound and bowled. Ribbon the exact shade of lily of the valley leaves, is used for these baskets when filled with lilies. *Myosotis* is clustered in baskets trimmed with blue, and so with the white bulbs, such as *narcissus* and *hyacinths*, which are filled in white trimmed baskets. A very novel design made up by Beers, of 5th avenue, who has original ideas in

decoration, is a butterfly made on a light wire frame, and supported from a rod which rises from a base that is mossed and filled with long-stem roses. The effect is the fluttering over these of the insect. The body of the butterfly was made of violets and its "feelers" of lily of the valley sprays. The lower half of the wings were formed of golden *chrysanthemums* and blotched with gorgeous pausies. The upper part of the wings were shaded from pink to red with *carnations*.

A dinner arrangement made by Hanft Bros., this week, showed a fine disposition of the fairy lamp which was gotten up in all the colors and the shape of a tulip. These were introduced into a centre-piece of ferns and were a gaudy addition to the selected foliage. Japanese butterflies were so placed in this piece as to appear to be quivering over the lacy leaves. The table was garlanded with a chain of *Asparagus tenuissimus*, and there were favors of choice roses. A gentlemen's dinner given by Mr. Samuel Sloan, the late president of the New York Horticultural society, was richly embellished with a centre-piece five feet in length composed of adiantums in which were plunged too *Magna Charta* roses. There were four circular end baskets containing *Jacquemint* roses and festooned with lily of the valley. Around the table above the covers was a band of asparagus vine in which lily of the valley spikes were so adjusted as to form a double fringe falling both ways. The favors were *boutonnieres* of *hyacinths* and *violets*.

A lovely luncheon adornment was done on a white satin cover. White, pink and the plush double bouvardia were employed with *salignella*. A vine was made of the moss and pink bouvardia diagonally across the table. At the opposite side of the vine at each end was an oval cut-glass dish in which white and blush double bouvardia was clustered. There were spun glass baskets filled with daisies for favors.

The size of hand-bouquets is so large as to be burdensome. I may say the larger these are made the more fashionable. Four orchid hand bunches were sent to the Garret hall, Baltimore, which were magnificent; the one composed of *Vanda cerulea* sprays was a dainty collection of these celestial colored flowers, loosely caught together with adiantums. Wedding bouquets are much larger than they were. They are made of *Niphotos* or *Bride* roses with a cluster of lily of the valley in one side. The bunch is festooned with small leaves of *Adiantum cucumatum*. A pink rose, usually *La France*, is tucked in among the other roses, but quite beneath them, so that only a glimpse may be had of this flower when looking down into the bunch; it is placed just above the lily of the valley where the cluster narrows up to the centre. All wedding bunches after having the stems bound with the white foil made for this purpose, should have a covering of satin neatly fitted and sewed over the foil. Then the sash is tied close to the bouquet; the finish of a bouquet, and the "tender touch," such as the adjustment of the pink rose, add much to its elegance. It is quite the correct thing for the florist to send the bride a nose-guy to wear away, a cluster of white violets, or some such simple flowers, with the stems bound the same as the hand bunch.

Boutonnieres are made very large for full dress, but they have declined again to a small knot of violets, or a single carnation or bud for the street. The handsomest *boutonnieres* I have seen this week were made of the florets of Roman *hyacinths*. These were wired, and thirty of them made into a fan with three *Neapolitan* violets in its centre. *Neapolitan* violets are very fashionable, and violet baskets very flaring and with handles, are filled with 100 *Marie Louise* one side, and the same number of *Neapolitans* on the other. A small cluster of white violets is tied with ribbon of shades of purple to match the flowers on the handle.

Orchids at Rochester.

BY HENRY A. SHREVE, CTT.

The very valuable collection of orchids at Rochester, owned by William S. Kimball, Esq., and presided over by his able gardener, Mr. George Savage, is no doubt as extensive and complete a collection as can be found anywhere on this continent, and I doubt very much if it can be excelled by any of the large and famous collections in Europe; it is not only rich and valuable in number of plants and varieties, but what is very important, all the plants are in excellent health and vigor. Nowhere have I seen such high and successful cultivation, showing that no amount of care and expense is spared to attain the best results.

In looking through this vast private establishment one would think that it were being conducted on a commercial basis—such perfect order and system seems to prevail in every department; but not so, for unlike many private gentlemen who make all they can out of their private greenhouses Mr. Kimball will not dispose of a single blossom for money, his sole object being to gratify his love for the beautiful in nature, and to share the same with his many friends and visitors. I feel sure that he could not have devised a better project to accomplish that end. Every day in the year this magnificent museum of nature's rarest and most beautiful forms is open to the public, for this beneficent gentleman desires all to enjoy his treasures with him. Happily, this now noted place is located in the heart of the city, making it very convenient not only to residents but to the traveler whose time may be limited. I would that more of our wealthy men would, like this gentleman, devote a share of their wealth to the cause of horticulture, thereby benefiting all humanity as well as themselves.

Mr. Kimball's plant consists of an unique group of about a dozen houses which are arranged in such a way that one can walk through and view the beauties of the entire range without once stepping out of doors. A large curved-span house is filled with angreums, vandas, saccolabiums, and arides, some of which are exceptionally fine specimens. In the center of a group is the majestic *Vanda Lowii*, which, it will be remembered, was exhibited in bloom last season; and Mr. Savage informed me that by a register kept at the time fully 6,000 people from far and near came to see the plant while in bloom.

Next adjoining and similar to the vanda house is the cattleya house, well stocked with fine, healthy specimens of all known varieties, a great many of which are now in bloom. I noticed such as *C. labiata Percivaliana*, *C. trianae*, *C. Mendellii*, *C. speciosissima*, and hundreds of others, showing for flowers. Those in bloom are superb, and show the perfect care they have undoubtedly had.

Another house is filled with cyrtopodiums or slipper plants; you can find every known variety in cultivation, as Mr. Kimball is especially fond of cyrtopodiums, and has made the most of his specialties for the last two years. These thousands of plants are in a flourishing state, many of rarer and also some of the commoner varieties being now in bloom. Next we enter the odontoglossum house, which is a large north house; here the beautiful gems of the South American Alps thrive luxuriantly; thousands of plants, all in fine condition, and hundreds of them with spikes in different stages of development, some in full bloom, others

showing prominently, and more of them coming on later. There are also a number of other cool orchids in this house, such as *Laelia anceps*; *L. anceps Hillii* was in fine bloom, *L. autumnalis*, *Cattleya citrina*, etc. All these, except the odontoglossums, were suspended.

Now we enter a house which contains, I have no doubt, the largest and most varied collection of orchids which can be found anywhere; here you can see the poorest and the best of the epiphytals as well as of the terrestrial genera; there are some very interesting plants in this collection, and as Mr. Savage says, always something in bloom. Here we drop into a small but unique house devoted almost entirely to masdevallias and maxillarias, of which there are some fine large speci-



LEPTOSYNE MARITIMA

mens; several varieties are now in bloom, with dozens and scores of blossoms. Masdevallia tovarense, with its pure white, bold, and upright blossoms, the interesting though small *M. Shuttleworthii*, *M. Veitchii*, *M. Harryana*, a number of them coming into bloom.

We wonder if this is the last, when we are told that the next house is the dendrobium house, where are more varieties of this very graceful and free flowering genus than one could scarce up perhaps in a dozen places, and though there are not many varieties in bloom at present there are great numbers of buds; in this house you will also find a grand collection of oncidiums, lycastes, and calanthes; the latter are nearly past, but what is left of them and the bulbs and stocks show plainly how very fine and large they must have been when in their prime. We also see in this house grand masses of *Cattleya citrina* showing signs of bloom, and immense masses of *Laelia albidia*, *anceps*, *autumnalis*, and the largest lot of *L. dayana* I have ever seen anywhere.

We are not far through yet, for next we enter into the real East India, or phalaenopsis house, which is a wing of a stove. Here are certainly the best and largest phalaenopsis in this country, and not only in a small way, but in quantities including every variety of this very pretty but delicate genus. Every orchid grower knows what a queer and precarious family they are; as we often remark, when you think you have a fine plant, and

are all right, the first thing you know is your plant is going. I must compliment Mr. Savage upon the healthy and sturdy appearance of his plants. Not many were in bloom, but any number of spikes were showing for an abundant crop. This is another one of Mr. Kimball's specialties, and if money can obtain any new or rare variety of this family Mr. Kimball secures it. The stove house adjoining contains only the choicest kinds of tropical foliage plants; anthuriums of every variety, nepenthes, masses of colored foliage such as crotons, dracaenas, alcasias, and others of great interest.

In addition to the orchid and plant houses there is an aquatic house, with an artificial pond, in which are at home the gems of the water, some of which are in bloom the year round. *Nymphaea devoniensis* was in perfect bloom, and several other sorts were showing buds. The ends and sides of this large house are finished off with palms, ferns, flowering vines, such as bonganvilleas, bignonias, jasmines, tuckermans, passifloras, and allamandas, with hundreds of flowers. There is an abundance of bulbous flowers, of which there is no end; lilies of the valley, hyacinths, tulips, freesias, and narcissus. There are also two rose houses, a violet and pansy house, and when one has passed through he wonders how all these things are kept in such perfect order and condition. Here is a place to learn a great deal.

Mr. Kimball certainly has every reason to be proud of his now large and handsome collection, especially when we consider the short time since he first projected the plans for this magnificent place. He takes a great personal interest and pleasure in his plants, and I doubt if there is one in his houses of which he does not know the name, or is not more or less familiar with. Novelties are being continually added, and thousands of dollars are annually expended in new and desirable acquisitions.

New Rochelle, N. Y., Jan. 22, '87.

Leptosyne Maritima.

I am real glad to know from your correspondent, E. L., page 213, that some of our florists have taken hold of this beautiful winter-blooming plant. I have grown it for many years and time and again have urged its cultivation by our florists. John Thorpe has seen it here in bloom, and I met flowers of it to our late lamented friend James V. Murkland, to show them to his friends in New York.

It is one of the golden beauties of California, indigenous to the sea beach at San Diego and on the islands. It is also known as *Tuckermannia maritima*, Nutt. and *Coreopsis maritima*, Brn. and Hooker, but Gray's name, *Leptosyne maritima*, is the one retained by Sireno Watson, the eminent author of the Botany of California.

Although it is a perennial, I always treat it as an annual. The seeds are cheap enough, and they germinate as readily as do those of zinnias. Sown in spring it will bloom out of doors in summer (but the flowers are not as fine as those produced under glass in winter), and sown in June it will bloom in December; or those of the spring sowing if lifted and potted about the end of July, make fine winter stock. It loves the sunshine. Heavy waterings destroy it. While desirable in limited quantity, I should not advise any florist to go into it extensively; better try a few plants to begin with. I think it will always be a "fancy" article; never a popular plant.

Vanda Sanderiana.

We take pleasure in presenting our readers with an illustration of the now famous plant which brought the high price at the noted Morgan sale last season.

This plant was taken from its native habitat in the East Indies by one of Messrs. Hugh Low & Co's collectors, and brought to England by him in 1880.

Messrs. Low & Co. established it and sold it at auction in London, where it was purchased by Messrs. Backhouse & Sons, of York, for 200 guineas. These gentlemen sold it to Messrs. Veitch, who sent it to Mrs. Morgan for about double the amount which the plant first sold for. At the Morgan sale it was purchased by Siebrecht & Wadley for \$900, who in turn sold it to the late C. J. Osborn for \$1,000. The day after it was sold a letter was received from England with orders to purchase the plant at a much higher figure, but the plant went to crown Mr. Osborn's collection, where it still remains the gem of its family.

The plant was recently in bloom, and our illustration is from a photograph secured for us by Mr. Siebrecht.

Orchids for Cut-flowers.

When visiting Gen. Rathbone's greenhouses, in Albany, a few days ago, I was much impressed upon seeing his cologyns, with the capabilities of this orchid for producing large results. If all florists could grow this plant with the same success as the General, all further debate upon the question of the profit to be derived from growing orchid flowers for the market, would be unnecessary.

The facts related to me by Gen. Rathbone are as follows: Three years ago he purchased at an auction sale, a large plant of *Cologyna cristata*, the plant being of such a size as to be called "Jumbo."

For it he paid the sum of \$165. For one year he kept it without disturbing it in any way, then it was broken up, and several pieces made of the original plant. At the time of writing there are three large pans filled with magnificent bulbs which at auction would undoubtedly bring \$50 to \$75 each. Besides these there are about fifteen smaller pieces, in value from \$10 to \$20 each.

I was somewhat interested in ascertaining the number of flowers likely to be cut this season, from these several plants; at a low estimate it is said to be about five hundred spikes; many of these spikes

have six flowers upon them, hardly any less than five.

The hench-room occupied by these cologyns does not exceed 150 square feet, so that even if the flowers should be sold wholesale at \$1 per dozen, they would easily return a handsome profit.

It is not probable that every one can grow this orchid as well as those above mentioned have been grown, but let no one

vice for artistic work. Many florists, interested in this subject of orchids for cut flowers, but not experienced in their culture, would upon seeing the healthy condition of the plants, the freedom with which they bloom, and the beauty and desirability of the flowers at once arrive at the conclusion that here there would certainly be an orchid in every way suitable for the purpose of growing for cut-flowers;

but they would make a great mistake.

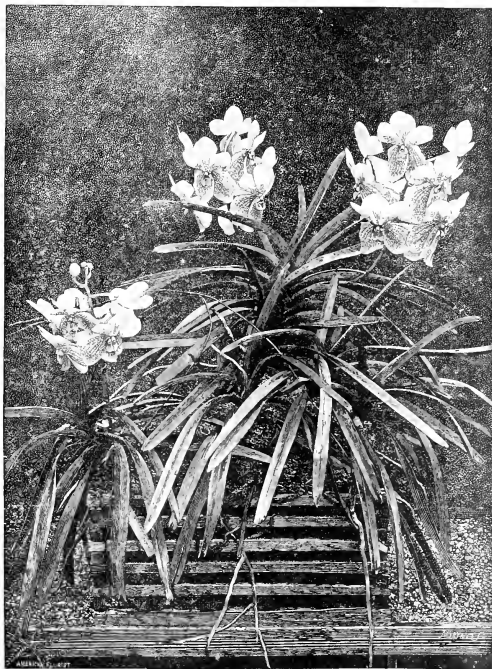
More failures are made probably with this genus, than with any other. Not only do inexperienced cultivators lose many plants, but those who have grown them successfully for years, accumulating many plants, often find their pieces deteriorating, and all efforts seem powerless to restore their former vigor. Neither can phalaenopsis be purchased for a small sum of money as good plants always command high prices.

Amongst those orchids which can be grown, and the flowers sold at a profit, is *Cattleya Mossiae*. This cattleya has been cultivated for many years, and, as a large number of pieces have been imported during late years, it can be purchased at a very reasonable price. It blooms during the spring months, and the flowers are quite an acquisition to the florist, not only on account of their size, but also because of their rich coloring. The flowers are produced freely, plants in 5-inch and 6-inch pots often producing from four to eight. There are many varieties of these cattleyas. Out of one hundred imported plants, but few flowers would be found to be exactly alike in color, the shading varying extremely.

No difficulty need be experienced in flowering this species. A complete rest is given through the winter. During that time it should be placed in a house where the night temperature does not exceed 55°, and water given only to prevent the bulbs from shriveling. Formerly it was considered necessary to shade this and other orchids, at all times, but this is not considered good policy, according to present ideas, and shading is generally dispensed with through the winter months.

The flowers of most cattleyas are valuable for cutting purposes. Nearly all of them are readily grown, and if attention is paid to the resting period, no trouble need be apprehended in flowering them. Some, though, are high priced, and, therefore, on that account, undesirable for the purpose we have in view.

(CONTINUED IN NEXT NUMBER.)



Vanda Sanderiana

be deterred by any supposed difficulty in undertaking its culture; for, as before observed in these pages, its requirements are simple, and can be easily managed by inexperienced, though careful growers.

During the same visit I was also strongly impressed by another circumstance—how few orchids there are out of all the species cultivated, that would be likely to prove profitable, if grown for the sole purpose of marketing the flowers. For instance, in the same houses there is a magnificent batch of phalaenopsis in bloom, the plants being extremely healthy and vigorous, and the flowers of large size. One spike of *P. grandiflora* has about eight or nine of the largest flowers ever seen in this country. Any florist, seeing these flowers, would be filled with admiration and could readily discern their value in the making up of designs. Not only is this species desirable, but both *P. amabilis* and *P. Schilleriana* are of equal ser-

New Carnations.

We give herewith an illustration of two of Mr. John Thorpe's new seedling carnations, from which much is expected. E. G. Hill is pronounced the best scarlet carnation for cut flower purpose ever introduced. Its merits are stated by the introducers as follows: "It is very early—as early as any carnation grown; very prolific, bearing its flowers on very short stems and never bursts its calyx. Flowers a fine shade of scarlet and measuring from two to two and a half inches in diameter; petals full and perfectly crimped with fringed edges."

Columbia is stated to be "the best of the variegated carnations; flowers very full and perfect, two to two and a half inches in diameter; petals beautifully fringed and crimped; color delicate flesh, with lemon tint, deepening towards center to a rosy salmon, rayed and dashed with bright scarlet on outer part of petals; long stems; never bursts, free blooming and very robust."

Growing Geraniums.

"Oh! anybody can grow geraniums!" Yes, but can they grow good plants? Last spring the writer visited the markets in several of the larger cities and was surprised at the small percentage of really well-grown geraniums offered for sale. Enormous quantities of plants were seen at every place, as the geranium is beyond question a standard market plant, but a large majority of the plants were so badly "drawn" as to be nearly worthless. Plants in which pots with leaf stems six to eight inches and flower stems eight and ten inches long were far more frequently seen than good, sturdy, compact plants.

The unfortunate purchaser of such plants is of course badly disappointed, as when planted out they make no growth until all the forced foliage drops, and new, normal growth is made, during which time the plants are anything but objects of beauty. This is especially aggravating, if a neighbors' plants are at the time in full bloom, and, by the way, that neighbor's fine bed is all that saves the entire craft from being classed as frauds by the victim of "drawn" plants. He, quite naturally comes to the conclusion that "It isn't worth while for him to bother them," and a plant buyer is lost to the trade.

Grow as many plants as you possibly can, but do not increase the quantity at the expense of quality, for you will find that it does not pay in the long run. The customer to whom you sell a good plant that will give satisfaction, will be sure to patronize you succeeding seasons while he sells poor stock cheap must depend entirely upon new trade each year.

I will briefly describe the method of growing geraniums, practiced at Lincoln park, Chicago, where large quantities are grown each year for the park beds.

Before frost overtakes the bedded plants in the fall cuttings are taken from them and placed in a propagating house without heat, the sand being first well watered. Water is then given very sparingly for a week or ten days the object being to still further ripen the wood before inducing them to root. After potting they are grown on in a house having a night tem-

perature of 50° only, but with all the light possible, watering of course but lightly. [Don't tuck them away under the bench if you want good plants.] At about this season they begin to grow some, and as room is valuable they are prevented from becoming "drawn" by going over them and picking off all the larger leaves, thus admitting light between the plants. At the same time the tops of the stronger



ones are pinched off, causing them to break at the sides. When the pots are well filled with roots they are shifted into 3's, not delaying until the roots force through the drainage hole of the pot. As soon as they are growing strongly in their new quarters the larger leaves are again pinched off and those that require it are again pinched, giving enough room at all times to admit light between the plants. About April 1, they are shifted into 4's and at once transferred to a mild hot bed where they remain until wanted for bedding.

If the plants were to be sold on the market, they could be taken into the greenhouse in batches at selling time where a very little heat would quickly bring them into fine bloom, making them just as showy and much more durable and satisfactory than the ungainly, "drawn" specimens from the crowded benches of the careless grower.

Mr. de Snow is handled in a different way; the plants being lifted from the beds in the fall in sufficient quantities for stock in the usual way. Propagating is begun in December and as the cuttings obtainable from Mr. de Snow at that time are of course quite small, and so short

that it is very difficult to handle them, the following method is practiced. To a leaf stem of each cutting is wired a toothpick as shown in engraving on page 228, (not too closely, as that might induce rot), which supports the cutting. The pick is inserted in the sand, bringing the base of the cutting to the top of the sand only, as the plant will root just as freely thus as if inserted in the sand. When rooted they are potted without removing the pick, which is taken out later after the plant has become firmly established in the pot. G.

The Bennett.

EDITOR AMERICAN FLORIST:—I notice in your issue of the 15th of January, that Wm. Hanson of Philadelphia, is quoted as having said that he will "pull the Bennett out never to grow it again." I believe that Mr. Hanson, if he now thinks so, will not be long in changing his mind.

In a house where we have 500 Beauties, 500 Perles, 100 Sunsets, 200 Niphets, 200 Bon Silene, 200 Bride, 100 Mermets, 100 Cook, 100 Souvenir d'un Ami, 1,000 Bennetts, planted, we find that in proportion to space occupied, the Bennett has paid better than anything else, and that too in the face of the fact that less than half of the Bennetts are in good working shape, while every other variety in the house is in excellent condition. I say that less than half of the Bennetts are in good working condition; that is, that while one portion has grown to a height of from two to three feet, the others run from six to twelve inches, a consequence, no doubt, of being injured by over propagation, and, which in my opinion will be found to have been the cause, where ever (under proper handling) the Bennett has proved a failure.

And just here, let me say that the failure of the Sunset (which has brought down much unmerited censure on my head) undoubtedly is traceable to the same cause. The extraordinary demand for the Sunset, like the Bennett, caused growers to use all kinds of wood from already weakened stock, and as a consequence, we have loss of color from loss of vigor. Last spring, well believing that to be the cause, we imported a few worked plants from England, and though they were miserable stuff, two-thirds of them dying, yet the few that lived have shown a vigor that I have never yet seen in the Sunset since the original plant flowered with me seven years ago. The leaves and shoots are the color of blood beet foliage, and the color of the buds can well claim as being of sunset hues.

The Bennett and Sunset have come to stay and will drive out some of their older contemporaries. PETER THOMPSON, Jersey City, N.J., Jan. 18, 1887.

GROUND MICE.—Will some of your readers tell me how I can get rid of ground mice? They have eaten nearly all of my violet plants in cold frames this winter. I have tried to poison them by putting "rough on rats" in pieces of sweet potatoes and laying them around in the frames, and have tried to get rid of them in other ways, but have not succeeded yet. Can not some reader of the FLORIST tell me some way to accomplish their destruction? J. P. G.



R. E. P. G. 1887

Rose Papa Gontier.

Mr. John Henderson, Flushing, N. Y., sends us a dozen buds of the Papa Gontier rose. Though sent by mail the roses stood the long journey well, arriving in excellent condition; this alone speaks well for this rose, as shipping qualities are a great desideratum in a rose for cut flowers. The color and size of buds were all that they have been described to be. We present above an illustration of this rose, which, though not of recent introduction, is new to most of our readers.

Cyrtipedium Insigne with Blossoms on each Stalk.

Has any reader of THE FLORIST had the same good luck in the culture of this

old favorite that has come to my share this season? In the summer of '85 I bought a few orchids, and among the plants was a good sized *Cyrtipedium insignis*, which I divided into about twenty pieces, potting them in turfy loam and chopped sphagnum, freely mixed with pounded brick rubbish—I give the nature of the potting material as I find by experience, this to be the best thing I have ever found to grow them in—potting firmly, and putting on top some live sphagnum—which I generally manage to keep in growing condition—resulting the plants after flowering in a sharp cool spot. Of course during this period the moss becomes dry, but I find it always ready to start with the growing season. Of the twenty plants seventeen bore flowers and fifteen carried two flowers

(one very little inferior to the other) on each stalk. Perhaps this freak has been often experienced by some of our veteran orchid growers, but I nor my neighbor florists have ever seen it occur, and if any readers of the FLORIST have had a similar experience should be pleased to hear of it.

WM. MATTHEWS.
Utica, N. Y.

The Bennett.

In a late trade list I see it stated that "the Bennett has proved to be a most vigorous growing variety and a wonderful free bloomer, every shoot producing a bud." Also that in a comparative test of roses, new and old, for winter blooming the Bennett was the most profitable of all.

Will some one tell us of the soil, temperature, etc., that make it the most profitable? How is it treated to get that vigorous growth? how many shoots will one get on a plant that will compare in vigor to a *Safanoor Bon*? In buds, yes, the quantity is there, but not the quality; neither long stems or good color. It will give some fine buds, that we admit, but that it is a profitable rose for florists or rose growers, we cannot do.

We have tried it in various ways, solid beds, benches, and in pots; it is invariably the same result, not satisfactory. In the last FLORIST (Jan. 15) we see around Philadelphia they are throwing it out and putting in "stuff that will pay."

Again, the rose, "Her Majesty," who can grow it free from mildew, and who has flowered it to make it pay? What are its needs? Jan. 24, '87. "GEYSER."

NEW CARNATIONS.—As Geyser has opened the question I will give my experience with some of them, as last spring after reading, the glowing advertisements, we purchased a stock of the entire class. Mary Anderson, pronounced as "far superior to any white," is with us the meekest of all carnations, producing not one perfect flower. John McCulloch, the "largest scarlet known," is n.g., not worthy the name of such an artist. Clara Morris is still worse. American Wonder has good flowers, but all on short stems, and is far surpassed by Century. Sunshine is a very desirable variety; it is a good grower, prolific and well worthy of cultivation. In the same house with these, older varieties bloom nicely and are perfectly healthy.

G. E. B.

SILENE PENDULA COMPACTA P. L. PL. is a new double pink *silene*, described in the Dec. 16 issue of the *Journal of Horticulture* as a distinct annual that will be equally adapted for pots, borders, or massing in flower beds where a cushion-like surface of glowing pink is desirable. It is offered by James Carter, London.

Chrysanthemums.

BY A. H. FEWKES.

The cultivation of the chrysanthemum should begin as soon as the plant is through flowering, for it is in great measure upon the health of the cutting taken from the old plant that future success depends. Many growers as soon as the plant has flowered, cut it down to the pot; but this is a very risky thing to do, as many varieties have a weak constitution and will sometimes refuse to start into growth if the old tops are cut off too soon. The best way is to cut the branches back quite severely at first, but not to cut the plant down to the pot until the shoots have begun to start quite freely from the roots.

The plants should receive as good cultivation after they have bloomed as before, for it is useless to expect a good, healthy plant from an unhealthy cutting. From carelessness in this respect, or from want of room, plants are often packed under the benches or in some equally unwholesome place, and the consequence is that the shoots which start from the roots, from which the cuttings are usually made, will be very soft and weak, and totally unfit for cuttings. To this cause alone the essayist attributed full half the failures so common in chrysanthemum growing.

The chrysanthemum is essentially a sun-loving plant, and any encroachment on its rights is fully paid for in sickly plants and flowers devoid of that exquisite coloring that should make them so charming. The plants as soon as they are through flowering, should be put in the sunniest place possible and have plenty of fresh air, judicious watering and a temperature of about 50° or 55°. The matter of watering is a very important one at this time, as well as through the summer months. The plants are made up to be over than under watered at this season, but still they should never be allowed to come to a wilting condition, especially after they have begun to make fresh growth.

As soon as the young shoots are three or four inches long they are taken off for cuttings and placed in the cutting bench in good, clean, rather fine sand, in a temperature of from 45° to 50°, with a gentle bottom heat of about ten degrees higher. Too high a temperature is a very prolific cause of failure in striking cuttings.

In making the cuttings, choose such shoots as have a fresh, growing appearance, and reject all those that are at all rusty or unhealthy. Cut off all but about three leaves at the top, for if more are left they are very apt to wilt, and then it is difficult, if not impossible, to revive them. The lower end is cut with a sharp knife, without regard to the position of the leaves, as the roots start about as freely between the joints as they do below them. Ample room should be allowed the cuttings while in the sand, for if they are too much crowded they are apt to gather an excess of moisture, which will cause them to damp-off, especially if they have previously suffered from dryness.

If everything goes well the cuttings will be rooted in about two weeks, and when the roots are from half an inch to an inch in length they are carefully removed from the sand and immediately repotted in 2½-inch pots. It is quite important that the cuttings should be taken from the sand as soon as they are well rooted, for as soon as the roots are formed the cuttings begin to grow, and there being very little nourishment in the sand, they soon become weak and stunted if left there.

The soil for potting should be composed of about three parts of good sandy loam, and one of well-decayed stable manure. A heavy clay should be avoided. As soon as potted, the plants are placed in a quite cool, light and airy structure, and shaded for a few days from the bright sunshine by a covering of papers. They should be sparingly watered at first, but as they get used to their new condition and begin to grow freely the quantity may be increased as required, and from this time to the end they should never be allowed to suffer from want of water.

For the greater part of the plants that are to flower in autumn, the cuttings are put in from the first to the third week in March, and potted as soon as rooted; the



CUTTING SUPPORTED BY TOOTHPICK.

See *Growing Geraniums*, Page 226.

healthiest are selected to be potted up preparatory to being planted out in the ground.

After the pots are well filled with roots, but before the plants are actually pot-bound, they are shifted from the 2½-inch size to 4-inch, and from that to 5-inch, as becomes necessary, for the plants should never be allowed to become pot-bound. An April cutting that has never been checked is much better than one started in February or March and allowed to become pot-bound, for one great secret of success in chrysanthemum culture is to be found in keeping the plants in a healthy growing condition from the time the cuttings are made until they come into flower.

Pinching may begin as soon as the plant is about six inches high. Pinch out the smallest amount possible from the growing end, never cutting back too hard wood except in cases of unshapely growth. Pinching is best done a few days or a week before the plant is shifted to a larger pot, for by this time the new shoots have begun to start, and will be in condition to use the nourishment supplied by the fresh soil.

Even when the grower has the advantage of a house capable of being ventilated to an unusual degree, it is best to place the plants in a cold frame as early as can be done with safety from frost. Here they can be hardened off, and will be in better condition to start into growth immediately after planting out, which is usually best done about the middle of May.

For planting out, such a location should be chosen as will at all times have a full exposure to the sun and air. It is desirable that it should be so situated as to be protected from strong winds, but this must not interfere with the prime necessities of sun and air. The plants can be so

staked and tied that they will withstand all ordinary winds, but nothing will supply the deficiency of direct sunlight and fresh air.

A light, rich loam is the best soil; if possible it should be quite sandy, so as not to adhere to the roots in hard lumps, but to fall away without taking the roots with it. With a proper soil and a high, open exposure there need be little fear of mildew, the one nearly incurable enemy of the chrysanthemum grower.

The plants should be placed in rows, about 2½ or 3 feet apart each way. For each plant a hole about the size of a potato hill is dug and filled with manure, which is well forked into the soil. The plant is placed in the hole, which is then filled up with loam, being careful that the surface is lower than the surrounding ground, so as to retain any water that may be given to the plants.

The plants are to be kept well watered until the roots have taken hold of the soil, after which they receive no water unless the season is dry and they show signs of suffering, when they may have it as often as needed, occasionally substituting liquid manure. Whichever is used should be applied at evening, so as not to be evaporated before it has time to soak into the ground. As soon as the roots begin to take hold of the soil, the plants will push out branches very freely, which should be pinched as soon as they are four inches long, repeating the operation as often as the branches become long enough, and continuing until about the middle of July, after which the plants may be allowed to grow at will, simply cutting back any unshapely branches. The most severe pinching is done while the plants are quite small, so as to secure as many branches near the bottom as possible. These remarks do not apply to varieties that make shapely plants without pinching; such had better be left to themselves.

Soon after setting out, each plant is furnished with a strong stake, and as it increases in size others are added to prevent the branches from being broken by the wind. As the season advances, many branches become so heavy that they are unable to sustain their own weight, and it frequently happens that what has promised to become a fine, shapely plant will be irreparably disfigured by one or more branches dropping off. To prevent this, strings are tied around them from time to time in such positions that one branch sustains another. In this way few branches are lost and much time is saved when the plants are potted.

The worst insect pest is the black aphid, which will cause much trouble if allowed to increase. Dalmatian powder applied with a bellows is an effectual remedy.

About the second or third week in August the plants are lifted, the best time being when the ground is very dry, for the plants will then recover sooner than when it is moist. They are taken up thus early because it is better that they should form their buds after potting, for, if formed before, their potting will cause a severe check which is apt to result in deformed or one-sided flowers.

The plants are lifted with all the roots that can be secured, but in order to get them into reasonable-sized pots considerable of the soil is carefully shaken off, provided it is light enough to fall off easily without breaking into lumps. For potting, soil containing more manure than that for the small plants is used—about two parts of good loam to

one of well-rotted stable manure. The pots are selected according to the size of the roots, being careful not to have them too large.

In potting large plants the soil should never reach higher than an inch from the rim of the pot, so as to leave ample room for the absorption of water and liquid manure.

After the plants are potted they are placed under trees where they can have plenty of air, but at the same time be shaded from the hot sun. They remain here about a week or until they seem to have recovered, when they are taken to the ground where they grew and plunged to the rim of the pot in the soil. As they begin to grow they must have plenty of water and never become dry. The young roots soon reach the sides of the pots, after which liquid manure may be freely given as long as the buds are growing.

As cold nights approach, the plants are placed under glass, even before actual frost appears. It is a mistake to try to keep the plants out until the actual appearance of hard frost, for we have many nights not cold enough to freeze, but cold enough to check their growth, and this checking of their growth is an acknowledged cause of mildew wherever it appears.

For a long time after placing them under glass they require no artificial heat, and should be very freely ventilated through the day. In cold, cloudy weather it is best to introduce a little heat into the house, if only to dry out the dampness. Soon after they are brought in, the black aphid will appear, and must be persistently fought with tobacco smoke, as long as the plants remain inside. *Extract from paper read before Mass. Hort. society, Jan. 15.*

The "South Side."

That wedge of Hill's seems to have started something; at least Mr. Bird is trying to hit the "other end." "A. E. W." says "that rose cuttings placed upon a bench where they will receive sunshine root more freely and are of a better color." He might have added also that they have more roots, and stronger ones. "E. W." it seems, don't want to give up the room for the propagating bench. Then why does he not try rooting them among the rose bushes in his beds or benches? He has plenty of room. He well says, "that it will do none of us harm to consider this subject."

In reply to Mr. Bird, I would say that the glass is not shaded, yet the strong light is broken, and this is not done until March. The "change of temperature" does not seem to hurt them. Just look at what May says in the same issue, page 180: "The ordinary temperature of the rose house is the best for cuttings."

The main point is to keep the bed at proper condition of moisture; in the sunshine it should be very moist; so much moisture would scare a "north sider" out of his wits.

The current of cool air coming down the glass and passing over the cuttings. Keeps the temperature just about right, higher in the daytime, lower at night, while the pipes keep the bottom heat just as you want it. Cuttings rooted in the sunshine do not need the shading after potting; they are accustomed to light, and glory in it, as is shown by their growth, strong and free.

Now to you unbelievers I would say, try this sunny way, throw away your prejudice, give it a fair trial, and you will be found in favor it.

Jan. 12, '87.

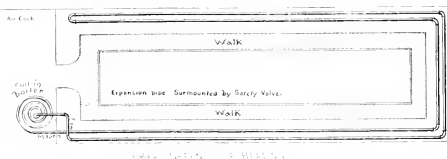
GREYER.

Cheap Greenhouse Heating.

BY WALTER W. COLES.

In heating small places I would strongly advocate the use of hot water under pressure in preference to flues, both as to effectiveness and first cost. It is more durable, easier and quicker put in, far better and healthier for the plants, and the cost is less than that of a flue to heat the same space, costing probably about as much as terra cotta pipes.

I had heard that the system was in successful use by Mr. Wm. Cochran, gardener to Geo. C. Lamdin, Esq., and being interested in the matter, I called on the gentleman, who readily gave me all the information asked, and I will now give



the result of my queries to the readers of the FLORIST.

His boiler consists of fifteen feet of 1-inch pipe coiled in the shape of a rustic beehive, fifteen inches in diameter at the bottom and seven at the top. The furnace is built of brick similar to an ordinary flue furnace, but following the shape of the coil, leaving an inch space between it and the masonry. As the top of the coil enters the greenhouse it is bushed into a 2-inch pipe which makes the circuit of the house; at the highest point there is a cock for the escape of air when the pipes are being filled. An expansion tank made of a 5-foot length of 2-inch pipe surmounted by a safety-valve completes the system.

The pipes are filled through a 1-inch pipe connected with the return in the boiler, the top of the pipe being on a level with the highest point in the flow; it is necessary to have a valve here to shut off as soon as the pipes are full. Mr. Cochran has his flue brought back into the stove-hole with a piece of ordinary stove pipe, but I would suggest building a flue along under the back bench of the greenhouse as being much more economical of fuel.

The house in question is 14 x 35 feet, and the heating apparatus cost complete only \$15. Any man with ordinary skill can put the pipes together. Mr. C. has no gauge to indicate the amount of pressure used, but he says he places a weight of 50 pounds on the safety valve and fires up according to the weather. It seems to me that this system would be well adapted for houses of say from 50 to 100 feet in length. From what I have seen of hot water under pressure I should consider it necessary to have a separate boiler for each house; I tried to use the system in two new houses and thought it heated one house successfully the water would not circulate in No. 2.

Messrs. Lonsdale & Burton, Germantown, are using water under pressure to heat their American Beauty house and seem to be well pleased with it; they use 2-inch pipe for the boiler (which Mr. Burton made himself), for a house, I think, 18 x 80 feet. The 2-inch pipes extend entirely around the house, except half of the back where a flue is built, and one

pipe less is used; the down-hill plan is the one used.

Laundowne, Pa.

Packing Pipes.

Last fall, when putting in my hot water pipes, from taking every fool's advice, I used metallic lead for packing, melting it and running it into the joints. The consequence was that from the difference in the expansion and contraction of the two metals the pipes leaked first, last and all the time. All the caulking in the world would not keep them tight. I write this to warn other unsophisticated florists from ever attempting to make use of metallic lead for packing. S. V.

Boilers and Pipes.

Is it practicable or desirable to use, for grates, hot-water pipes with a circulation independent of the boiler? I heard it stated a short time ago by one who claims to be posted on hot-water heating that 1-inch pipe is better than 4-inch, providing enough are used to give the same radiating surface. Can anyone give actual experience in the matter? I would throw out as a hint: Would it not pay the florists of the country to contribute, each according to his means, toward an experimental fund, and then appoint a committee of practical men to give practical tests of boilers already on the market, or to construct new boilers with a view of ascertaining how to construct the best greenhouse boiler for hot water? If the idea is worth working out I would suggest that a committee be appointed by the S. A. F., the scope of the work outlined, then the contributions called for. A man feels more like going down in his pocket if he knows how his money will be used and who has charge.

LUCIUS ROSE.

Down-hill Piping.

BY G. S. D.

After reading the article in AMERICAN FLORIST of Dec. 15, on hot-water circulation, we thought that at last the "curable" had been discovered for bad circulation but soon changed our mind after visiting a neighboring florist who last summer had two houses repaired on the down-hill plan with hot water under pressure.

The boiler, an upright sectional, some four or five feet high was placed on the surface of the ground in a shed between two houses, each about 15 x 60 feet and joined end to end. There was a separate flow and a separate return for each of the two houses, with stop-valves in each, and as both houses were alike and the same trouble occurred in both, a description of one will answer.

The flow, commencing at the boiler, rose perpendicularly for about one foot, which was its highest point, and from there entered the house at near one corner, passed across that end overhead so as to clear the walk, then dropped down into

the top of a branch tee with three outlets, from which three 2-inch heating pipes passed along the side of the house, then across the far end and returned along the opposite side of the house into another branch tee. From the bottom of this tee a single pipe returns the water to the boiler.

The trouble that occurs with this system is that the top pipe of the three gets all the hot water and the lower two are nearly cold for about three-quarters of their length. The reader will bear in mind that the pipes are laid on a continuous descent all the way, and just where the trouble is we do not claim to know; perhaps some of our experienced "down-hill" men can explain.

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ROSES.—The present cold weather will be rather a heavy tax on the coal bins, but I advise during extreme weather to let the heat in all rose houses drop to 50° at night or even 45° thereby saving some fuel and keeping the plants in a more thrifty, healthy condition. It is a well known fact that a very high temperature radiating from the pipes weakens the foliage and growth of all plants, and growth produced under such circumstances is sure to suffer when exposed to bright sun, also producing a poor quality of flowers. Many cultivators do not estimate the injury they are subjecting their plants to by this means alone, but a little careful study of the subject will convince them of the evil effects therefrom. Keep all the dead leaves picked off, and keep everything clean and free of weeds, insects, etc.; look carefully over beds and benches for dry spots, as during hard firing some spots that are most exposed to a direct current of hot air will dry out faster than other parts less exposed, and if watering of such spots is neglected the plants near by will naturally suffer a check, and often become badly affected with spider, etc. As the days lengthen a little weak liquid manure can be given once a week, which will greatly help plants where the soil is somewhat exhausted, but be careful not to overdo it. Remember that more plants are killed by this than all other causes combined. J. N. M.

DITCH HYACINTHS can now be brought into the greenhouse. It is almost useless to try to get them into flower earlier in the season. From this date, however, good flowers may be expected. It is well to remember that the demand for flowers is much lighter through Lent, than before and after that time; so all our calculations should be made with the object of having the largest supply whenever we are sure of having a large demand. Arrange accordingly, and do not force too many valley, hyacinths, tulips, etc., during the month of March, but have a full assortment ready for the market, by Easter, which, this year falls on April 6.

It is by anticipating and preparing for the immense demand for flowers and plants at Easter, that the shrewd and energetic florist, shows his superiority to his less persevering brethren; for here is his golden opportunity coming but once each year; for success is sure and certain for him that knows and avails himself of the opportunities within his reach.

Hydrangea, Thos. Hogg, and H. Okaka, can be now placed in heat, for the purpose of having them in bloom for Easter; the former is quicker than the latter. A. E. W.

Thomas Moore.

Mr. Thomas Moore died at his residence, in Botanic garden, Chelsea, London, England, Jan. 1, last, in the 66th year of his age. His life-long labors in the advancement of horticulture is known in every country where a love of gardening is fostered. He was appointed curator of the Chelsea Botanic garden in 1848 and has resided at Chelsea for nearly 40 years. As an author he has produced many valuable works, but will be best recollected by his work on ferns, which were his special study. For several years he was connected with the editorial department of the *Gardener's Chronicle*, and for many years edited the *Florist* and *Pomologist* a monthly magazine recently discontinued. To the last he was associated with Mr. B. S. Williams in the editing of the *Orchid Album*. The good and successful work he has done for horticulture will be an enduring monument to his memory.

MONTREAL, CAN.—The florists of this city are organizing a florists' club. A meeting to perfect organization will be held Feb. 3, when a constitution and by-laws will be submitted for action.

WILL SOME of your many readers give the best uses hen manure can be applied to in and about the florist's business, and whether used in liquid or dry state? H.

WOULD it not be a good plan to use water for syringing, that was about the temperature of 70° or 80°, even higher, because it would cool very rapidly after it left the hose? Should think this treatment would make the bulbs break very soon. R.

WILL SOME one give us through the *FLORIST* their experience in handling freest bulbs after blooming? Also if Romant, narcissus and tulips can be put to any profitable use, and if so, how to handle them? F.

MR. F. P. DILLER, of Milwaukee, wishes us to state that his boilers did not give out as stated in our last issue; and that the foundation for our correspondent's report was merely that a flue in one boiler sprung a leak, which was soon remedied without damage to the contents of houses.

Catalogues Received.

Chandler Smith, Mystic River, Ct., seeds; Geo. Thompson & Sons, Louisville, Ky., plants; D. Guichenot, Nantes, France, seeds and bulbs; D. W. Cozad, LaCygne, Kans., nursery stock; W. D. Lane, Middlebury, Vt., plants; J. A. Simmers, Toronto, Ont., seeds; G. Pillsbury, Nashua, N. H., plants; J. Lewis Childs, Queens, N. Y., plants and seeds; S. V. Haines & Co., Philadelphia, seeds; Fountain Conservatory, Pueblo, Colo., plants and bulbs; Carrie Ross, Milwaukee, Wis., plants and seeds; Bertram Bros., Indianapolis, Ind., plants; Nanz & Neuner, Louisville, Ky., plants and seeds; N. Steffens, New York, florists' wire designs; John A. Salzer, La Crosse, Wis., plants and seeds; Isaac F. Tillinghast, LaFume, Pa., seeds; Dingee & Conard Co., West Grove, Pa., roses and hardy plants; Michael Plant & Seed Co., St. Louis, seeds; James King, Chicago, seeds; Reesoner Bros., Mantua, Pa., plants and nursery stock; Iowa Seed Co., Des Moines, Ia., seeds; Michael Rains & Co., London, England, seeds and bulbs.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order.

SITUATION WANTED—By practical florist and gardener, married. Address, **MUDROCK KEMP**, Flushing postoffice, Queens Co., L. I.

SITUATION WANTED—By practical florist and gardener, married, and experienced in single. For particulars, address: "*Florist*," care John Young, P. O. Box 305, New York City.

SITUATION WANTED—As foreman and rose grower, experienced in single, good experience, and first-class references. Address, **A. Z.**, care John Keyes, 11 West 7th St., N. Y.

SITUATION WANTED—By a florist and gardener, experienced in taking charge of any establishment, first-class references. Particulars through Mr. Robert Hughes, florist, 881 Euclid Ave., Cleveland, O.

SITUATION WANTED—By a young man thoroughly posted in the greenhouse business. Am willing to work under instruction; none but a first-class place wanted; wages reasonable. Address, **W. H. D.**, 15 East 33d St., Dayton, O.

SITUATION WANTED—By a first-class German florist and gardener, 32 years of age, 15 years experience, single, steady, reliable, references; first-class references. Address, **H. H. S.**, care A. M. *FLORIST*, Chicago.

SITUATION WANTED—As foreman and gardener at other commercial or private place. Good cut flower grower; first-class references; married; a partner in preferred. Address, **HEIDMAN SCHWAB**, 12 Southport Ave., Chicago.

SITUATION WANTED—By a first-class rose grower and propagator, over thirty years' experience, references, single, and Barry. Mr. Hope, address, also John Charlton, nurseryman, Rochester, N. Y. Address, **JOHN CYRILIAN**, 1 Franklin St., Boston, N. Y.

SITUATION WANTED—By a young man, seven years' experience in nursery and greenhouses. Address, **W. H. D.**, care A. M. *FLORIST*, Chicago.

SITUATION WANTED—By a young man aged 25; six years' experience in a private greenhouse establishment; thoroughly understands one of all kinds of plants; references; references. Address, "*SECOND*," care A. M. *FLORIST*, Chicago.

WANTED—A situation as gardener; 20 years' experience; 18 years old, with family. Can come well recommended by references. Address, address letters to N. N. care A. M. *FLORIST*, Chicago.

WANTED—Situation as a gardener by a German; married, no family, seven years in America, speaks English fairly, capable, conscientious, capable, flower and vegetable garden, grapes and fruits. Address, **HEIDMAN PAUL**, Franklin, Pa.

WANTED—Nurses Catalogues. Address, **H. ROSELEY & Bro.**, Colby, Kansas.

WANTED—A first-class cut flower worker to take an interest in a florist establishment. Address, **R. E. G.**, care A. M. *FLORIST*, Chicago.

WANTED—A first-class orchid grower. Single man preferred, must have experience. Address, **STURMANT W. ADLEY**, 30 3rd Ave., New York City.

WANTED—Single man, first assistant in commercial place, where mostly cut flowers are grown. Good worker, steady, must have been thoroughly competent and have good references. Address, **ASSISTANT**, Box 27, Westbury, L. I.

WANTED—Seed and plant salesmen with experience and business ability. Those who can furnish first-class testimonials as to character and ability need apply. Address, **SALISMAN**, Philadelphia.

WANTED—To purchase or lease a commercial establishment with not less than 1000 square feet of glass, suitable for the growing of a variety of Philadelphia house plants, where there is a regular demand. Address, **W. H. D.**, care A. M. *FLORIST*, Philadelphia.

FOR SALE—Cuttings of *Broom-palm*, *staple*, and *free Press*. Address, **ELIAS STEPHENSON**, Burnside, Ky.

FOR SALE—A piece of Elizabeth, N. J., containing 2 acres of land, 6 greenhouses with stock of plants, suitable for both wholesale and retail business. Must be sold to settle an estate. Address, **J. J. GIBBS**, Elizabeth, N. J.

FOR SALE—By German, *Conde Horner* (Thos. J. J. J.), *German*, *Dean* (B. H.), *white*, *Impatiens*, *Marguerites*, etc.; per 100 lbs. plants. Address, **A. CHAS. H. GARD**, Springfield, Ill.

FOR SALE—Greenhouses, with some land and an established business. Mainly in carnations and Saxifrage, and a few other plants. There is a regular demand. Stock will be kept up and business continued as usual. Address, **W. H. D.**, care A. M. *FLORIST*, Chicago.

FOR SALE—Edible Windmill. A *Edible* *Edible* windmill in use four years, in best-class condition. It will save the owner the cost of a windmill, and save steam power being used the year round for pumping and straining. Price and particulars on application to **HENRY S. DUFF**, Philadelphia.

The Out-Flower Trade.

New York Retail Prices.

Papa Gontiers, \$2.00 a dozen; Perles, Niphetos, Souvrs, \$1.75; Cooks, \$2.00; Magnetics, \$3; American Beauty, 50c to \$1.50 each; Bennefs, 25 to 30c; La France, 25 to 50c; Jacqueminots, 50c to \$1.00; Hybrids, \$1.00; carnations, 50c to \$1.00 a dozen; Bon Silene, \$1.00; heliotrope, \$1.00; R. hincinthis, \$1.00 to \$1.75; lily of valley, \$1.00; lilacs, \$1.60 to \$2.00 a spray; Lilium candidum, 50c each; narcissus, \$1.00 a dozen; poinsettias, 50c and 75c each; tulips, \$1.00 to \$1.50 a dozen; violets, \$1.50 a bunch.

Cut Flowers in Paris.

There is going to be a positive famine of flowers in Paris next week. Florists have so largely replaced bouquets as fashionable offerings for New Year's day that the demand this season exceeds the supply in spite of a large importation from Nice. The flower sales at the Halles and at the principal florists, will amount this year, during the last three days of 1886, to the sum of \$900,000. The provision for New Year's day at the central markets alone will include 150,000 dozen of Nice roses, 15,000 clusters of ordinary roses, 15,000 bunches of lilacs, and 100,000 dozen of camellias. Plants in pots will also be included among the offerings of the season, dwarf palm trees being the most popular. The favorite bouquets are great sheaves of lilacs intermixed with long-stemmed roses and with snowballs, or else clusters of white camellias and pale tinted roses. The extreme of "chic" is a small groupe of rare orchids, four or five in number, tied together loosely with a blue or pink satin ribbon. As \$25 is no uncommon sum to be demanded and paid for one of these wonderful blossoms, it can readily be imagined that fashion has at last discovered a method for making a bunch of flowers as costly as a jewel. I remember in this connection an adventure that once happened to an American lady who was staying in Rome. One of her country people, who was anxious to do her honor, sent her a gigantic bouquet of camellias and violets as large round as a good-sized tea table. The husband of the recipient of this superb offering sent in return, to the wife of the donor, a basket of white roses, in which were laid some half a dozen of the choicest orchids procurable. And the last-named lady was very indignant. "We sent Mrs. X— a magnificent, big bouquet," she was afterwards heard to remark, "and Mr. X— sent me just a little bunch of flowers. So mean of him, wasn't it?"—*Extract from a Parisian letter.*

SAN FRANCISCO.—The demand for flowers at the holidays was double that of previous years with me. More flowers were sold Christmas and less on New Year's day than in former years. Many new customers were noted; people whom I have never seen ordering work before. Common out-door flowers were abundant, but choice ones scarce. There was a great demand for roses. La France sold freely a week ahead for \$6 per dozen. Niphetos, Jacquets and Pericles Jardin, for \$5 and Bon Silene \$3. Violets, 100 bunch, 50c. All other flowers and floral pieces sold as usual at this season, 25 per cent. above ordinary prices. I sold a great many plants of orchids in bloom. There is quite a demand growing for them here.

J. H. S.

Cincinnati.

Society has been so gay and there have been so many banquets that Cincinnati florists have no ground to complain of the dull trade that usually follows the holidays. Local florists are very glad that the eastern custom of no flowers at receptions is not in favor here. The handsomest bouquet carried here this month was made by Frank Huntsman; it was entirely of Marmet roses—three dozen of them—and a wedge of violets afforded a pleasing contrast to the color. Critchell decorated the tables at the banquet to the court house commissioners given by the bar of the county. They were in the shape of a letter U. At the curve, where the notables sat, the scales of justice were traced in flowers, balanced upon a floral sword. The gilded chairs from which the

A design exhibited by Peterson, of the Floral exchange, was much admired. It was a large camp kettle of many-hued, long-stemmed roses.

The Irish Land league tried hard to get boutonnieres of the green rose for their banquet but failed of course.

Harry Sunderbruch is home from St. Louis, favorably impressed with that city, and trade as there conducted, "RER."

New Orleans.

But few florists here had any flowers for the holidays, as but a very few of us are prepared to force flowers for the winter trade. In fact, it would hardly pay to go to the expense of forcing flowers here, as the rose ceases to bloom for only two months of the year—that is, January and February. The only growers who force flowers at present are Maitre & Cook, E. Baker, and J. H. Menard.

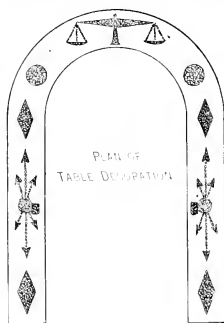
J. Fonta and J. Eblen are building at present, large rosehouses, and a few other florists, I understand, contemplate doing the same thing; therefore, next season there will be a lively competition, and prices being lower, there will be a larger demand for flowers than heretofore. As it is at present, only a few can indulge in flowers at this season of the year, as roses vary in price from \$2.50 to \$5.25 per dozen.

The trade in flowers this season, generally speaking, has not been as good as in former years, the principal cause being a severe cold snap coming in the early part of December, which took us all unawares, as we did not anticipate freezing weather till January. Consequently it caused a shortage of stock for the holidays, and the stock could not supply the demand on those two days, some florists having been compelled to order from the north and west in order to meet the demand. With the exception of Christmas and New Year's, the demand has been very small in comparison with previous years.

The only flowers we have blooming now are roses, violets, narcissus, bouvardias and sweet alyssum. The Roman hyacinths are very backward this year. But the general demand is for the rose, without regard to variety, although the Marechal Niel still has the lead, with the American beauty a good second.

The American Beauty is fast growing into favor, as it blooms very profusely here, and on account of its rich color and exquisite perfume, is destined to become the leading rose of the south in a very few years. H. A. DESPOMMIER.

CHRISTMAS FLOWERS.—Flowers of many kinds have been very abundant in Covent Garden market this week, especially the Paper White narcissus, violets, and roses. Of the last named large quantities have been imported from the continent and sold by auction at excessively low prices, boxes of four dozen buds of Safrano and other varieties having been sold at 1s. 5d. (35 cents) per dozen, an extraordinary price for roses at Christmas. The other flowers brought proportionately low prices, leaving little chance for the home growers to obtain a profitable sale. Some hundreds of crates of m. m. roses have been sold in a similar way, the lowest price of a crate being about 6s., (\$1.50), not one-fourth of what was paid a few years ago for a similar quantity. The supply is chiefly derived from Normandy and other parts of the continent, while a considerable number of crates, both from there and from this country, have been shipped to the United States *Journal of Horticulture.*



scales depended were entwined with smilax. On either long arm of the U was an unique design—a gauntleted hand clasped about a bundle of arrows—the largest eight feet in length. The gauntlets were made of old gold immortelles, reminding one of the yellow buskin of olden times. The shafts of the arrows were of white carnations and Roman hyacinths, while the tips were of crimson carnations. There were large diamonds, and round baskets of narcissus, carnations, hyacinths and roses, while the white cloth was veiled by a network of smilax. The 150 boutonnieres were made up entirely of the new crimson pink rose—the Papa Gontier—and that long line of color produced an artistic effect.

Huntsman decorated as pretty a dinner table as has been seen here this winter the other day. It was a round one, and in the center there was a perfect forest of the microlepis fern, clustered with adiantums, and surrounding this upon the circular basket were the favors—eighteen handsome corsage bunches—tied with red and pink satin ribbons. One which attracted more than ordinary attention was made up of Freesia refracta alba.

The florists are enjoying a joke at Gardner's expense. He accepted a contract to furnish a large number of baskets for favors at a society given. Nobody else in town would touch them for the price the swells wanted to pay. Night of the ball Gardner telephoned that he had been disappointed in getting the flowers. Society tore its hair that night and Gardner has not been happy since.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.25.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column \$14.00.
Cash with Order.

No Special Position Guaranteed.

Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.

No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.25¢ Advertisements for Feb. 15th issue must
REACH US by noon, Feb. 5. Address:

THE AMERICAN FLORIST CO., Chicago.

The Sunday Press of Albany, N.Y., is
devoting considerable space in each issue
to descriptions of the greenhouse establish-
ments of that city.A NEW edition of their "book of plants"
of flower bed designs is soon to be pub-
lished by Geo. A. Solly & Sons, Spring-
field, Mass.WE HAVE received an advance circular
of the "Colorado Horticulturist," a
new semi-monthly, the publication of
which will begin March 1, next at
Pueblo, Colo.**WELCH BROS.,**
WHOLESALE FLORISTS.165 Tremont Street, BOSTON, MASS.
We make a specialty of shipping choice Roses and
other Flowers, carefully packed, to all points in
Western and Middle States.
Return Telegram is sent immediately when it
is impossible to fill your order.**SCHILLER & KUSKE,**

NILES CENTER, ILL.

Offer For Cash, at \$1.00 per 100, fine Lily of the
Valley, assorted Tulips, Romanus and Daffo-
dils, and other cut flowers. Send orders to

M. OLSON,

175 WABASH AVE., CHICAGO.

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Price only \$1.00.

American Florist Co.

W. S. ALLEN,

WHOLESALE FLORIST

940 Broadway, N. Y.

Price Lists mailed to applicants.

JOHN J. PERKINS,

Wholesale and Commission

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59 West 28th Street,

(Telephone No. 672, 39th St.) New York
Branch, 38 S. 10th St., Phila., Pa.
Greenhouses, Cresskill, N. J.

TIEO, ROEHRIS,

WHOLESALE DEALER IN

CUT FLOWERS

No. 153 West 31st Street,

NEW YORK.

JOHN KEYES,

WHOLESALE - FLORIST

No. 11 West 27th Street,

Near Broadway, NEW YORK.

Consignee of the principal growers near New York.
Lilies of the Valley and Lilacs at all times.**Wholesale Markets.****Cut Flowers.**

CHICAGO, Jan. 25.

	PER 100
Roses, Perles, Niphetos...	9.00
" Mermans...	15.00
" La France...	10.00
" Bon Solenos...	10.00
" Sultanas...	15.00
" Dukes...	12.00
" Benetts...	10.00
Carnations, long...	2.50
" short...	2.00
Violets...	1.00
Romans, Rhodans...	1.00
Benavaria...	1.00
Valley...	8.00
Lily of valley...	20.00
Saxif...	6.00
Tulips...	7.00
Heliotrope...	1.00

BOSTON, Jan. 25.

Roses, Teas...	\$ 1.00
" Perles, Niphetos...	12.00
" Mermans, Benetts...	15.00
" La France...	10.00
" Hybrids...	20.00
" Nels...	25.00
Carnations...	2.00
Lily valley...	1.50
Tulips, Tree-...	1.00
Lilacs...	1.00
Cyclamen...	2.00
Azalea...	1.00
Saxif...	20.00
Alumina...	2.00
Violets...	2.00

NEW YORK, Jan. 25.

Roses, Bon Solenos...	\$ 1.00
" Perles, Niphetos, Sonys...	12.00
" Mermans, Benetts...	15.00
" Dukes, M. Cusin...	10.00
" Hybrids...	20.00
" Am. Beauty...	25.00
" Jacques...	10.00
" Hybrids...	20.00
" La France...	15.00
Carnations...	1.00
Magnolia, tulips...	20.00
Saxif...	2.00
Narcissus...	1.00
Lily valley...	1.00
Violets...	1.00
Freesia...	1.00
Asparagus...	1.00
Poinsettia...	1.00
Calas...	1.00
Lilac, per bunch...	1.00

PHILADELPHIA, Jan. 25.

Roses, Teas...	\$ 1.00
" Perles, Niphetos...	12.00
" Mermans, Benetts...	15.00
" Dukes, La France...	10.00
" Jacques...	25.00
" Hybrids...	20.00
Carnations...	1.00
Benavaria...	1.00
Saxif...	20.00
Lily of valley...	1.00

WM. J. STEWART,

Wholesale Dealer in—

CUT FLOWERS

We offer as specialties for February

ORCHIDS,

CYCLAMENS.

and LILACS.

Heath expected soon.

PRICE LISTS ON APPLICATION.

67 Bromfield St., Boston, Mass.

Mention American Florist.

Forest Glen Floral Co.

Cut Flowers at Wholesale.

EXTENSIVE ROSE GROWERS.Telephone orders will receive prompt attention
at all hours, day and night.Greenhouses at Forest Glen, Cook County, Ill.
Mention the AMERICAN FLORIST.**D. M. STIMSON,**

Wholesale Dealer in

Cut Flowers & Florists' Supplies.All orders by mail, telegraph, express or tele-
phone promptly attended to.

Consignments solicited.

No. 11 Cambridge St., BOSTON, MASS.

Mention American Florist.

THOS. YOUNG, JR., & CO.

Wholesale

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INCORPORATED 1886.

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Wire Designs, Stentling Wire, Tin Foil, Hum-
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Flats and Standing Signs, all sizes, and
steadily in stock and sold at lowestorders by Mail, Telephone, Telegraph or Express
PROMPTLY FILLED.

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42 LA SALLE ST., CHICAGO.

Only wholesale store in the U. S. open
day and night. Code, shipping instruc-
tions and all like particulars supplied on
application. If you buy flowers write me.**DANIEL B. LONG,**

SUCCESSOR TO LONG BROTHERS

WHOLESALE FLORIST

BUFFALO, N.Y.

Largest and most complete stock of cut flowers in East and West. In Bulk
and for retail. Large Supplies.
Roses a Specialty. Improved methods.
Send for prices and particulars.**HAMMOND & HUNTER,**

Wholesale Dealers in

Cut Flowers & Florists' Supplies

61 West 30th Street, NEW YORK.

CHAS. E. PENNOCK,

Wholesale Dealer in Cut Flowers

S. W. cor. 10th & Sanson Sts., Philadelphia, Pa.

N. F. MCCARTHY & CO.

COMMISSION DEALERS

In Cut Flowers & Florists' Supplies

We make a specialty of Mornings, Nels, La France
Benetts, Dukes, Perles, Niphetos, Grace White and
Anna White, and all other flowers in variety.
We receive for nothing but first-class flowers, and make
a specialty of shipping all flowers invariably shipped
at lowest price. As a guarantee we have a stock of Boston
primaries. Another sales of leading plants. Spring
sales every Wednesday and Saturday from April 25
to June 2. Full sales from Sept. 1 to Oct. 1.

Write for Particulars.

61 Broadfield Street,

BOSTON, MASS.

LaRoche & Stahl,

Florists & Commission Merchants

in—

CUT FLOWERS.

1237 Chestnut Street, PHILADELPHIA.

Consignments solicited. Special attention paid to
shipping. Mention AMERICAN FLORIST.

C. STRAUSS & CO.,

CUT -:- FLOWERS

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WASHINGTON, D.C.

All orders shipped e. o. d. unless otherwise agreed.
Exceptional connection with our growers.**CUT FLOWERS**The cheapest Cut Flowers at lowest market rates
shipped e. o. d. Telephone 1-2-3-4. Free A. C.
Cable with forwarding e. o. d. Telephone 1-2-3-4.

J. L. DILLON, BLOOMSBURG, PA.

Orre Seed Trade.

A MILWAUKEE catalogue comes to us at pound rates. This is the only one this season so received.

PHILADELPHIA. Messrs. Z. DeForest Ely & Co. will remove to 1303 Market street about Feb. 1.

SAN FRANCISCO. Trumbull & Beche succeed R. J. Trumbull & Co. seedsmen at 419 Sansome street.

IL. A. DEERER has the finest catalogue cover in the business for 1887, so far as heard from. The inside work hardly equals it however.

LINCOLN, NEB.—The following resolution was adopted by the Nebraska state Horticultural society before adjourning Jan. 22:

Resolved by the Nebraska State Horticultural society. That in its opinion the annual seed-distribution made by the department of agriculture at Washington should be discontinued; that this society appreciate the liberal and far-sighted policy of the present commission of agriculture; that our society urge our congressmen to use every effort to secure the passage of the Hatch bill; that the society respectfully ask the legislature to fix by law the standard weight of a bushel of apples at forty pounds.

ON CHRISTMAS DAY there died at Bloomfield, N. J., Betsey C. Thorburn, the spinster daughter of Grant Thorburn, the pioneer seedsmen of America. In announcing Miss Thorburn's death, a New York paper gives a sketch of her father's life, from which we select the following, as showing the birth of the seed trade in this country:

It was a curious set of incidents which led Mr. Thorburn to adopt the business which brought fortune and fame to him. He had a hardware store at No. 22 Nassau street, and among his stock in trade were a lot of the common earthenware flower pots. He was frequently asked for seeds, better quality than he could give. One day he pointed some of them a bright green, purely for ornamental purposes in his little shop. They caught the ladies' fancy, and created an unexpected demand. To make things still more attractive he one day brought at the "Fly Market" a rose geranium, and displayed it, potted. The next day some one saw it, fancied it and purchased it. He made a profit by the transaction. The next day he purchased two plants and sold these. Then he saw profit in larger sales, and adopted the business. Seeds of the plants were called for, so he obtained and sold some. A friend who brought a lot of different kinds of seeds from England was induced to part with a lot and he put these on sale. It was a novelty that was appreciated. Then, in 1804, he began ordering from London. He had \$15 capital when he started out, and with that to commence with he built up a business, that became time one of the most extensive of its kind in the United States.

When Mr. Thorburn had a friend raising seeds for him in Brooklyn and began raising them for him—first on a farm where Newark now stands, he published the first catalogue of seeds ever printed in this country. Through it Thorburn's fame extended to Philadelphia, Boston, Albany, and Providence, and before the nineteenth century was far in its career, he was as well known in those cities as in this, and he prospered mightily. Even though in 1808 his store was burned out and his seeds burned with it, in 1810 his enterprise of seed-raising swamped all his little fortune, and he was obliged to go through an insolvency court. A short time in the city and all legal claims against him, but when prospects came to him later on he paid all the debts incurred during this unlucky period, and he and his wife the receipts held for them, amounting to several thousand dollars, as one of his legacies to his children.



**TRY DREER'S
GARDEN SEEDS**
Plants, Bulbs, and
Requisites. They are the
best at the lowest prices.
THE LOWEST possible
quantity mailed free.
HENRY A. DREER,
Philadelphia

Mention American Florist.

*If you want the best garden you have
ever had, you must sow*

MAULE'S SEEDS.

There is no question but that Maule's Garden Seeds are unsurpassed. Their present popularity in almost every county in the United States shows it. When once sown, others are not wanted at any price. One quarter of a million copies of my new Catalogue for 1887 have been already mailed. Every one possesses it (the most original and valuable Seed Catalogue ever published). It contains, among other things, cash prizes for premium vegetables, etc., to the amount of \$250, and also beautiful illustrations of over 200 vegetables and flowers, 20 being in colors. These are only two of many striking features. You should not think of purchasing any seeds this spring before sending for it. It is mailed free to all enclosing stamp for return postage. Address:

WM. HENRY MAULE,
1711 Filbert St. PHILADELPHIA, PA.



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That all who love a good garden may test our **Warranted Seeds**, we have prepared a **FREE** and **valuable** **SEED CATALOGUE** for 1887, which will be mailed **FREE** to all applicants, and to all our customers without incurring it. Available to all, every person using **any** of our **Flower Seeds** should send for it. Address: **W. H. ELY & CO.,** Detroit, Mich.

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BURPEE'S SEEDS, FARM ANNUAL FOR 1887

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44 DEY STREET OR P. O. BOX 809, - - - NEW YORK.

Hail Insurance.

The tenor of inquiry concerning hail insurance has been, "for how long does the assessment insure?" The reply is, for no specified time. As long as the treasurer has funds in his hands to pay losses no assessment is made.

The members of the company simply guarantee each other against loss, and one advanced assessment is placed in the hands of the treasurer to facilitate prompt payment of losses. The treasurer holds the membership fee as a guarantee that assessments will be paid; this also acts as a reserve fund to secure loss.

The assessment may insure the member for one year, or five according to the luck of the members in escaping hail.

It is the belief of those who have given the subject attention that florists will be surprised to find how cheaply they can secure themselves against loss by hail.

JOHN G. ESLER.

Secretary Florist's Hail Association of America.

Massachusetts Horticultural Society.

The annual meeting of this society was held on Saturday, Jan. 1. President H. P. Walcott in the chair. The president made an address, in which he briefly reviewed the history of the society for the year 1889, and referred in a fitting manner to the death of ex-President Wilder.

The past year has been a favorable one financially, so that in December the society was enabled to pay off \$9,000 of its mortgage debt, which is one half of the entire amount. The only indebtedness which is not provided for by cash on hand at the present is the balance of the mortgage debt, \$30,000, and the Stickney fund of \$12,000, due Harvard college in 1899. The receipts for 1889 were \$4,000 more than those for 1888, and the expenses exceeded those of 1888 by about \$1,000.

The president recommended that measures be taken to secure a larger hall for the principal exhibition of the society, and that the services of an expert be secured in addition to the regular committee to study more particularly the diseases of plants. At the close of the president's address, ex-President Strong in behalf of the committee appointed for the purpose, presented the following resolution:

In the gift of the long and pre eminently useful life of Marshall Pinckney Wilder the Massachusetts Horticultural society recognize the benevolent hand of the giver of all good. A specially kind Providence seems to have smiled upon his enthusiastic love of nature and his untiring devotion to the service of the society. With gratitude do we acknowledge the wise and lasting influence which Mr. Wilder has exerted in his favorite pursuit of horticulture, an influence of which this society has had the near and special benefit, but which has also extended beyond the limits of one state and country, and is reverend when our art is known. We shall cherish the memory of his emphasizing zeal in every branch of horticulture, his example in self-cultivation, his constant attendance, and his wise and kindly words of encouragement. While painfully conscious that these halls can never more welcome his presence, we turn from this sad thought to dwell upon the fact that he was a completed life, that he had filled up the measure of his usefulness to the world, and that he was gathered like a shock of corn fully ripe in its season.

It is hard to doubt that in humble trust he has entered the paradise of God, and that in company with those he loved, he is now engaged in higher, yet as kindred, pursuits with those that were the joy of his earthly life. Let it be our aim to be animated by his noble example.

To the family of the deceased the society extends its profound sympathy in this their sorrow.

Mr. Strong followed the presentation with warm words of eulogy. Appropriate remarks were also made by Messrs. E. L. Beal, C. M. Hovey, B. G. Smith, J. C. Hovey, J. G. Barker, O. B. Hadwen and Robert Manning.

THE CHICAGO FLORIST CLUB is preparing to give a grand ball Feb. 17. It is intended to make the floral decorations of the hall as elaborate as possible and show Chicago society people "how it ought to be done." The club now has 75 members and is in good financial condition. A centrally located club room for the use of members has been projected and some work in this direction has already been accomplished.

MR. JOHN CULLEN, gardener to E. P. Wilbur, Esq., South Bethlehem, Pa., has bought of his employer the greenhouse property in the town of Bethlehem. Besides running his own place as a florist's establishment, Mr. Cullen will still continue in Mr. Wilbur's service, as head gardener. John is a worker and success will attend him in whatever he undertakes.

MR. G. W. RINGROSE, of Wauwatosa, Wis., has two houses of carnations, which until about two weeks since were in fine condition. At that time the King of the Crimson began lying over and drying up until every one of that variety had died. All the other varieties in the same houses are in as fine condition as ever. The only theory yet advanced is that of snicide.

MR. A. GIBBINGS, of Danville, Ill., sends us fine blooms of the following carnations: Dawn, Chas. Sumner, Hinz's White, Gen. Garfield, Philadelphia, Miss. Jolliffe, Variegated La Puritie, Pink Perfection, Jos. Perkins, F. Mangold, Admiral Farragut, B. A. Elliott, A. C. Fitzpatrick, and John R. Murdoch.

MR. DANIEL B. LONG, of Buffalo, N. Y., lost his infant son Jan. 14. Mr. Long will have the sympathy of his friends in the trade, in this his second affliction within a short time.

WE HAVE received from W. S. Devoe, secretary, a copy of the proceedings for 1889 of the Columbus (O.) Hort. society. It is very neatly printed and contains much of value.

It is an old saying that "the early bird catches the worm," but how is it about the early worm that catches the bird. Will Mr. Bird tell us how he rides his mignonette of that "early" green worm which delights in a good square meal of

Asparagus Plumosus.

A very commoning sample of the suitability of *Asparagus plumosus* nanus as a wall plant is presented in a long lean to house in the Chilwell nurseries. The house faces the northwest, and the front stage is occupied with zonal pelargoniums in the summer. Lappagers appear to have been planted for covering one part of the lofty back wall and the asparagus the other portion, but this latter plant has given so much satisfaction by its luxuriant growth that it is being extended, and will no doubt eventually cover the entire surface. The dark elegant leafage is displayed in its fullest beauty, and great quantities might be cut for decorative purposes without impairing the effect. The wall only receives sun during the late afternoon in summer, and the temperature of the house is rendered suitable for the pelargoniums. For covering the shaded wall of a stove or warm greenhouse it is not easy to conceive any plant more suitable than this graceful asparagus. It is planted at intervals of about two feet in a narrow border, and spreads and grows in a manner that shows it to be quite at home under the conditions indicated. *John, of Hort.*

Passiflora Constance Elliott.

Can any one tell us when the highly lauded new *passiflora*, Constance Elliott, will bloom, and what treatment is necessary to persuade the haughty maid to favor ordinary mortals with a view of her lovely face? We purchased two plants last spring, planted one in sun, the other in shade and eagerly watched for the coming of the promised pure white flowers. Both plants made a wonderful growth of vine, but the closest scrutiny failed to discover a suspicion of buds at any time during the season. We saw the vine on Deere's grounds last summer but could gain no satisfactory information as to when it was expected to bloom, or would bloom. It matters not what the color of the flower may be if it never flowers! Will somebody please answer?

WESTERN.

I HAVE in my houses about 2,000 plants of carnations, planted in about Oct. 1. They were very fine, large plants when put in the house. I cut from them in October from four to five thousand blooms; in November eleven to twelve thousand, and December about eight thousand, but in the meantime about two-thirds of the buds have blasted. What is the cause? Last year I cut from the same number of plants over four thousand blooms a week when at their best. The plants look healthy now. E. H. P.

TWO NEW ROSES.—The *Journal des Roses* for December publishes a colored plate of a new hybrid remontant, Comte de Paris. The flowers are described as large and of a bright red, shading to a velvety purple. The plate represents a finely formed and very beautiful rose. A plate of a new tea rose, Madame Chavov (Bonnaire)—also appears with that number. Its color is a nankin yellow, with copper shading. It is highly spoken of by several European journals.

BLACK SPOT.—Mr. E. D. Darlington, of Doverstown, Pa., used Mr. Craig's remedy for "black spot," published in No. 13 of the AMERICAN FLORIST, on his American Beauty roses "which were so badly affected that he could not keep any foliage on them or induce a single cutting to root," and it proved a perfect cure. He considers it a valuable remedy.

DUTCH HYACINTHS which have made sufficient roots in the cold frame or house, may be placed in a temperature of 50° until they show signs of starting. No treatment is more ruinous than to place them in brisk heat for they are unduly forced out and commence expanding their bells at the top instead of the base. After such an untimely growth the majority on their temperature of 60° in which they will produce fine spikes. Early tulips, such as scarlet Die Van Thol and white Pottebakker, should have the same treatment as the hyacinths until it is certain they have commenced growth, when they can be forced in brisk heat. When once growing tulips will stand more heat than hyacinths. We have frequently forced them into bloom in a close propagating frame where the night temperature of the house does not fall below 65°. This course is not advised, but when the blooms are required it may be safely practiced.—*John, of Hort.*

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Each color per pkt., 25 cts., per 1,000 seeds, \$1.50.

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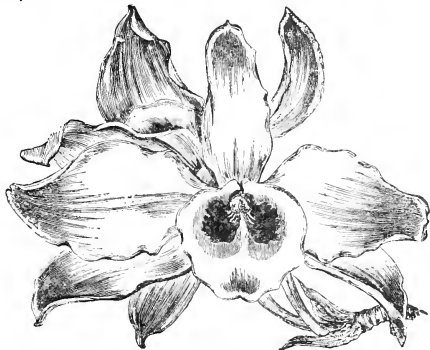
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" glauca, the variety.

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White.

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Pseudelecia glauca and schizantha.
Platyodon grandiflorum.
Rondeletia glauca, etc.

and many other plants and bulbs which are due till April.

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LEADEN, HOLLAND.

Mention American Florist.

New York.

Ernest Asmus' fragrant tulips are in brisk demand.

Mr. John Henderson is about starting for Florida and Cuba.

The Meteor roses in this locality are lacking in color, owing to protracted dark weather.

Last Saturday day of the valley was offered at the fifth-street flower market for \$1 a hundred.

J. J. Blauvelt of Pearl River, has brought in La France roses four inches in diameter with fine color; so says W. S. Allen.

John Thorpe has not yet been able to come to New York to attend to any business. The Horticultural society's annual election still hangs fire on this account.

A certain city florist is building up a reputation for tatty-giving. The asparagus vine he calls Japanese fern or African fern. All his plants and designs are dubbed with fantastic names which make sensible people smile, and "exasperate the professional prigs" who thought they knew it all!

Klunder had a unique and elegant arrangement in his shop window this week. There were three tall, slender, fiber-covered trunks of tree ferns bound together and rising from a bed of adiantums; the trunks were hung with plants of blooming cattleys; behind the trees was a brown pottery vase filled with vines of Marechal Neil roses in rich flower, the buds and bloom creeping out to contrast with the purple of the gorgeous orchids.

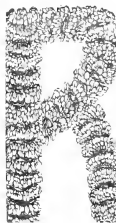
The date of the grand orchid exhibition to be given by Siebrecht and Wadley has not yet been decided upon, as it is of course, dependent upon the amount of bloom. It will probably occur in February, however, as orchid plants are blooming early this season, with them. The show is to be given in the winter garden of the Eden Musee, 55 West 23d street. The display will be quite unlike the general plant and cut-flower shows heretofore held in this city. Only orchids, and the possibilities in their arrangement for decoration will be exposed the first days of the entertainment; other plants and cut-flowers will be entered the closing days.

The very good-natured article of the Boston wholesale dealer on "floral fashions," is all very true as to the loveliness of simplicity in arrangements, etc. Mr. Stewart is quite unsophisticated regarding the fluctuations of floral fashions and to the importance placed upon them by those who spend large sums for flowers. These people as a rule, are not flower lovers, they neither know much about, nor care for them, only as they make their persons and apartments noticeable for elegance. They require constant novelties in decorations, and for these they will pay, when for a graceful and simple arrangement they will not make a contract. There are florists in certain quarters of this city that pooh at flower styles, because to them they are a dead language. Fashionable floral work is not demanded by their patrons, and like our Boston correspondent they are inclined to be incredulous.

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1880 1880

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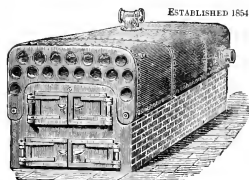


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HORTICULTURAL
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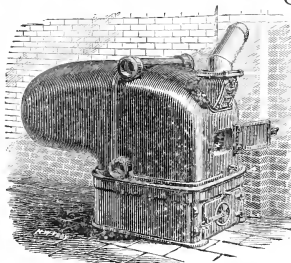
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AMERICAN FLORIST COMPANY,
54 La Salle St., CHICAGO.

Index to Advertisers.

Adams, C. Thompson	241	LeClare, J. F.	237
Advertising rates	275	Livingston, S. A. W.	242
Albrecht, A. R.	242	Norton	242
Allen, C. F.	242	Long, Daniel R.	242
Allen, W. D.	242	McAllister, F. E.	242
Allen, W. S.	242	McCarthy, N. F. & Co.	242
Buller, F. A.	242	McFarland, J. H.	242
Bayesdorfer, M. M. & Co.	242	McGregor Bros.	242
Benz, Albert	242	Mauls, Wm. Henry	242
Blanco, A.	242	McIntosh, J. N.	242
Brenkenridge & Co.	242	Michael Plant & Seed Co.	242
Brennenman & Potter	242	Muller & Hund	242
Burpee, W. Atlee & Co.	242	Moson, Remy	242
Charnody, J. D.	242	Morgan, Ed.	242
Chase, R. D., Jr.	242	Mullen, Geo.	242
Clark Bros.	242	Nana & Neuner	242
Coles, W. W.	242	O'Neil, M.	242
Craft, Charles S.	242	Perle, W. F. & Bro.	242
Cutbush, H. P. & Co.	242	Perkins, John J.	242
Curtis, J.	242	Perkins, J.	242
De Grant Bros.	242	Phelps, H. L.	242
Devoine & Butler Works	242	Pinkney, Josephus	242
De Voe, J. A.	242	Reed & Koller	242
Devoine & Butler Works	242	Reid, Thos.	242
Dickson, Albert	242	Roberts, August & Son	242
Dillon, J. L.	242	Saltzer, John A.	242
Dodge & Conard Co.	242	Saul, John	242
The Dress, H. A.	242	Schlegel & Fether	242
Dudley, J. W. & Son	242	Schulz, Jacob	242
Eames, W. H. & Co.	242	Scollay, John A.	242
Ebert, B. A. Co.	242	Seal, Thomas F.	242
Ely, Z. DeForest & Co.	242	Shelburne, W. C.	242
Ferry, D. M. & Co.	242	Shelburne, W. C.	242
Fewkes, Edwin & Son	242	Siebert & Wadley	242
Fink & Co.	242	Somers, John H.	242
Forest Glen Floral Co.	242	Stanton, Wm. E.	242
Frederick, J. H.	242	Smith, Geo.	242
Griddings, A.	242	Solly, Geo. A. & Sons	242
Gregory, Jas. J.	242	Spencer, W. H.	242
Griffin, Jas.	242	Starr, Chas. T.	242
Haines, H. W. & Co.	242	Steffens, J.	242
Hale, H. W.	242	Stewart, Wm. J.	242
Hall, E. & Son	242	Stimson, D. M.	242
Hallack, V. H. Son, & Thorpe	242	Storrs & Harrison Co.	242
Hammond & Hunter	242	Thompson, Mrs. J. S.	242
Hammond & Hunter	242	Thompson, M. & Co.	242
Hansen, H. C.	242	Tide, J. W.	242
Hend, John G.	242	Waterproofing	242
Henderson, John A.	242	Wheeler, W. C.	242
Henderson, Peter & Co.	242	Wicks, M. F. & Co.	242
Heinecke, C. & Co.	242	Wilson Bros.	242
Herr, Albert M.	242	Wood, F. A. & Bro.	242
Hughes Henry G.	242	Young & Elliot	242
Hill & Co.	242	Young, Thos. Jr. & Co.	242
Humphreys, E.	242	Zarnietel, Dons	242
Hutchins & Co.	242		
Hooker, H. M.	242		
Fres, J. H.	242		
Jensen, Ed.	242		
Jewett, Z. R.	242		
Joesten, C. H.	242		
Keyes, John	242		
King, James	242		
Kreissman, A. C.	242		
Krick, W. C.	242		
Kneib, C. A.	242		
Lambert Leroy	242		
La Roche & Stahl	242		

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Price 35 cts. a box. Tools 15 cts. each.

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Vol. II.

CHICAGO AND NEW YORK, FEBRUARY 15, 1887.

No. 37.

THE AMERICAN FLORIST

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GENERAL OFFICES, 54 La Salle Street, Chicago.
EASTERN OFFICE,
Room 87, Vanderbilt Building, New York.

All communications should be addressed to the
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Craig, Philadelphia, Pres.; J. C. Vaughan, V.
Pres.; M. A. Hunt, Treas.; Edwin Lonsdale,
Chestnut Hill, Philadelphia, Sec'y. The third
annual meeting at Chicago, August 16, 17 and
18, 1887.

A WEEKLY FLORIST.—So many subscribers request that the FLORIST be made a weekly that to get a full expression of opinion on the subject we request all who are willing to pay \$2.00 a year for the same to send us their names on a postal card. As soon as the number of names received will justify its publication we will make the change. Don't be afraid to speak up!

New York Horticultural Society.

At a meeting of this society, adjourned from December last on account of the illness of Secretary John Thorpe, and held Feb. 1, officers for the ensuing year were elected as follows: Thos. H. Spaulding, president; Isaac H. Young, treasurer, and John Thorpe, secretary. Mr. Thorpe was not improved enough in health to be present, but he is reported to be steadily gaining strength. The members of the society are very hopeful for its future under the able guidance of Mr. Spaulding, to whose energy and perseverance the great success of the orange show last November was largely due. All that is now necessary is for the members generally, and the trade, to give him deserved support in the management. M.

Renew your subscription through any of the following agents, or through any of the wholesale seed houses in the larger cities.

Baltimore, R. J. Haliday.
Boston, W. J. Stewart.
Buffalo, Daniel B. Long.
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Pittsburgh, J. K. & A. Mordoch.
St. Louis, Michel Plant & Seed Co.
San Francisco, Thos. A. Cox & Co.
Toronto, Ont., J. A. Simmers.
Washington, D. C., L. Schmidt & Sons.

Education and Competition.

A feeling is prevalent amongst some florists, that if they write or speak of their methods of cultivation, such instruction will result in a pecuniary loss to themselves. These gentlemen believe in keeping the result of their observations a secret—not thinking of their mission to furnish brains for other people.

This suggests the question: Are experienced florists injured by a free exposition of their views? And does the wide dissemination of these experiences by means of periodicals, largely increase the number of those producing flowers for the market, thereby effecting overproduction, and consequently low prices?

A discussion of these points in the pages of the FLORIST may perhaps be useful and tend to broaden our view. Doubtless many have been induced to enter the paths of floriculture by perusing popular works upon the subject, and by reading articles written by leading florists. These writings have not only led scores of men to enter the business, but they have also enabled many to improve their knowledge of plant-growing. If it can be proven that these large additions to our numbers, together with the education and consequent development of many types, injure in a financial point of view, those who have devoted a life-time to the building up of a paying business, good grounds may be found for observing a strict reticence in all matters pertaining to our livelihood; and looking at it from this standpoint, we should be justified, as far as possible, in secluding all our operations from others who may be seeking information for the purpose of adding to their own experience, and who will naturally use this experience in competing with their teachers.

But are these premises substantiated by our experience, and do we know of any instance where a persevering and energetic man has been materially injured by his willingness to aid and instruct others less experienced than himself? We find that the contrary is the case. For, if we reflect for a few moments, we can adduce instances of some of the most successful florists, as being men who are *always* willing to impart information, and give to others the benefit of years of observation and thought. It may be said, and probably with good reason, that much of this communicativeness is not natural, but is assumed with an eye to business, and that considerable custom is gained by this shrewd mode of advertisement. This objection, however, only proves the truth the writer wishes to enforce—that no injury can be done to the business of any florist, by his readiness to share with others some of the benefit derived from greater opportunities.

Even those most addicted to reticence

in regard to their own plans, are not above seeking information from others, for there are none so thoroughly posted but that some points may be gleaned from the least proficient amongst us. No matter how secretive we may be as regards our work, it is impossible to prevent any energetic, persevering thinker from climbing the ladder of progress and reaching the same plane where we ourselves stand. Nor, on the other hand, even should we blazon forth with trumpet tones the whole minutiae of our everyday gardening life, would it be possible to raise an inert, unobservant man from the rut in which he is moving.

Experience teaches us that all men of note in the ranks of the florists have attained their position by carefully observing from day to day, the principles of plant life, marking not only their own errors, but also those of others; zealously striving to succeed in whatever they undertake; not discouraged by failure nor daunted by difficulty; by these means alone do men rise to positions of eminence. Be it in our profession or in any other, and but by supposing that all their ways must be jealously guarded from all beholders.

If we examine and analyze our ideas we find that we are indebted to much that is outside of ourselves for whatever measure of success we have gained. A little knowledge picked up here, a little gathered there, a chance word dropped in our hearing, a glimpse of the plans of another, all help the relative mind to add to its information, and invigorate its action.

A few remarks in the FLORIST of Jan. 1 called our attention to the jealousy prevalent amongst so many commercial florists, and which causes considerable underhand rivalry. This jealousy is fostered by the feeling of distrust and suspicion which has been commented upon, until at last, the man possessed by it, views all new competitors as so many personal enemies.

Competition should not be looked upon as something to be dreaded—a thing of evil confronting us, ready to take the bread from our mouths; but, rather, it should be considered as an incentive to greater exertions and more thorough application. Without competition, much of the progress that has been made, and the skill and ability shown, would not have been manifested, and our knowledge, consequently, so much the poorer. Competition certainly crowds out of the race the lazy and the inefficient, but, as regards the strong, it but quickens energy and stimulates endeavor. No matter how crowded the market a good article will always sell.

It is not my intention to assert any such absurdity as that we are bound to use our experience to build up the business of our competitors, or that we are called upon to relax any legitimate efforts

to develop as large an individual trade as possible; I only wish to deprecate the belief that liberality towards our competitors means financial injury. Let us, therefore, in these pages and in our meetings feel perfect freedom in discussing our methods of cultivation, believing that good will result to each person concerned; not only will the novice be taught but the experienced will be assisted in maintaining his position in the van. A. E. W.

The Bennett and American Beauty.

In according to your request for my opinion as to the merits of these roses for cut-flower growers I shall try to give the facts as I believe them to be without any desire to join in useless controversy.

It must be admitted that some varieties of roses will do better in one locality than another; just how much the soil, the aspect of the rose houses, or the position assigned to each variety, as well as temperature and other causes that have an influence on the plants, may have to do with the matter, is the point at which we must pause for reflection. All rosarians know that every rose has its little peculiarities, and none so many as the hybrid tea section. The successful grower of American Beauty has studied its requirements and has possessed a soil that is favorable to its growth.

It is almost impossible for any successful grower to transmit to others all the details of culture by which he considers his success to have been attained. That both of the roses named have been profitably grown around New York is certain, and that they will continue to be grown is almost as sure. We must not be too hasty in condemning new roses; there is hardly a rose now grown in quantity for winter flowers but what was once discarded, though since resuscitated and brought into popular favor. I might in instance LaFrance, upon which the critics set very hard when first introduced; Perle des Jardins also came near being lost and forgotten, and a recent instance is the revival of Papa Gontier. The Sunset will unquestionably become a popular rose again. The roses that must take first rank for winter forcing in the future are the Bride, American Beauty, W. F. Bennett, Papa Gontier and Sunset.

In order to succeed with any rose there must be a close study of the requirements of the particular one in hand and a steady determination to get out of it all there is in it. As it is quite possible for one man to fail by the very methods which promote another's success, unvarying rules can not be given.

It must be remembered that all new roses lose strength and vigor by rapid propagation, and it often happens that they do not show at their best for a long time. The much abused rose, Her Majesty, may assume a different appearance under skilful treatment; the few thousands of weakly plants disseminated throughout the country gave no one an opportunity to judge it on its merits, as most of the plants were dormant bud grafted on briar, a stock totally unfitted to furnish nutrition for such a strong-growing rose. In fact we should go slow before condemning any of the newly introduced roses. CHARLES ANDERSON, Flushing, N. Y.

The Bennett.

In answer to the query as regards the value of the Bennett, would say that with us it has been a pronounced success, and we gave it a thorough trial.

About the first of last May, we bedded quite a number of Bennetts, good, strong

plants, on their own roots, for the purpose of forcing for summer propagation. After growing them at a high temperature during the summer, we took off the last propagation about the first of September, cutting back the plants nearly to the ground. We did not then intend to leave them, but afterwards concluded to do so by way of experiment. After giving them a little rest, we started them to growing; in a month they were well set with bloom, and until the first of January bloomed profusely. Since that time they have not bloomed so freely, only producing an occasional bud, but they are now making fresh growth and setting bloom for another crop.

As to color and size of bloom, they have been all that has been claimed for them. The buds were glowing crimson, large and finely formed, not holding their color so well as the light-colored varieties, but lasting several days without showing any signs of fading.

We have been very much disappointed in Her Majesty, not being able as yet to produce a single flower from it, and finding it exceedingly difficult of propagation, but of the Bennett and Beauty we cannot speak in terms of too much praise.

Zanesville, O. WM. BOXNER.

American Beauty and Bennett.

BY J. N. MAY.

Mr. Simpson asks if the American Beauty can be grown with profit. I would say yes, providing it is treated right. I have grown this season two houses of it; the first one planted I allowed to grow upright from the start; this produced the 7-foot shoots Mr. S. complains of, but they were not absolutely blind, as he says, for every shoot will eventually bloom if left alone. The time consumed making this house less profitable than the other one which was planted some three weeks later than the above. This second house was allowed to grow naturally till about the first week in October; then every shoot was tied over almost level with the soil and about ten to twelve inches above it. They nearly all broke nicely from the base of the plants, producing from three to six fine buds to each plant, with stems from twelve to twenty-four inches long, and the same plants have continued to break in the same way up to the present time. This second house has produced nearly twice the number of blooms that the other has, and during the month of November alone produced nearly double the money value in flowers that a house of Bennetts did, the house being an exact duplicate in size, etc.

The Bennett with me ranks in profitability below American Beauty, C. Mermet and the Bride. I have two houses of each of these varieties of exactly the same size and shape and containing exactly the same number of plants each—about 175 plants to each house—and up to date they rank in point of profitability in the following order: 1st, The Bride; 2nd, American Beauty; 3rd, C. Mermet; 4th, W. F. Bennett. Your correspondent, Geyser, page 227, will have to travel a long way to find many places where the Bennett makes many of the strong shoots like Bons or Safrano. As far as I have seen this winter I do not know of more than three houses in the country where it grows so strongly, and in those same houses there is no uniformity about its growth; one plant will start out and throw up a good strong shoot or shoots while several alongside it will scarcely grow all winter; true, every bit of new growth it makes produces a bud, but a

large proportion of them are very short-stemmed and a good many will also come off color.

I have found that budded on Mannetti or any good strong growing tea stock the Bennett grows very much better than on its own roots, so thoroughly am I convinced of this from trials the past season, that I shall not plant any others for my own use in future but budded plants. The above figures conflict somewhat with Mr. Henderson's, but I consider mine a very fair and impartial test. The eight houses above referred to are all built alike, the benches arranged the same and all treated as well as it was possible to do. Visitors all remark that my Bennetts are looking about as good as any they see anywhere; many considering them better than most others. There is one place in Philadelphia where the Bennett finds great favor if not with Mr. Hanson, and that is with Dennison Bros. at Belmont, and it certainly does very well indeed there, on the whole better than anywhere else I have ever seen it, and naturally it is a great pet with the Messrs. Dennison, still there are plenty of places where it is not petted much, and receives anything but high compliments.

THE BENNETT.—In reply to the query in a recent number, I will say that I planted some Bennetts Aug. 15, last, which have made two and one-half feet of young growth to Feb. 1, and they are entirely free from black spot. Some of the leaves are over four inches in length by two and one-half in width. They have flowered freely, and I have cut many fine buds. I intend to continue growing them. A. LAWSON,

Gardener to H. H. Houston.

Chestnut Hill, Pa.

Carnations.

BY WILLIAM FALCONER.

Sweet and lovely flowers, thrifty and copious, but often capricious. E. G. Hill with me is splendid; the flower is larger than that of Portia, and like it, does not burst. Glowing Col, a seedling of Portia and which Louis Siebrecht grows in large quantity, is very like E. G. Hill. Portia is very bright and copious and the stems are long, but the blooms are somewhat small. Marguis of Lorne, a scarlet I had a few years ago from Andover, Mass., is of stocky habit and free blooming; the flowers are a good deal larger than but not so long-stemmed or so bright as those of Portia. Marshall P. Wilder is a new one I got a year ago from Hallock & Thorpe. It has very large, highly fragrant, full double flowers, scarlet, with some crimson stripes. For the two winters before the present, Charles Henderson was the most prolific carnation I had, vigorous in growth and with sheaves of flower stems. This season it isn't nearly as good; and, curious enough, LaPurite, which for the past two years was only middling, is extremely luxuriant this winter and has blooms like little paeonies. Two years ago Lydia was capital, last year, poor; this season good. Hinzle's White is the best of its class that I have tried; when well handled its blooms are large and perfect in shape. I cannot do anything with Peerless.

Three years ago one of the finest lots of white carnations I ever saw was a house of DeGraw with C. L. Allen of Garden City. But it is one of the most unsatisfactory sorts with me. Crimson King is always a mainstay. Black Knight has come to stay, and now is a popular market variety. It is bright and keeps its color well after being cut. Fred Johnson is one of the



VASE AT LA CROSSE, W.

best of its class, copious, long-stemmed and of pleasing color. Not very unlike this variety is a new one, "87." I had a year ago from Hallock & Thorpe, and with which I am much pleased. I never yet got Buttercup healthy enough to give me satisfaction; I presume when growers give it more rest it will become better favored. Miss Joliffe is very pretty and much liked, but I should not care to depend on it alone; I have sometimes found it uncertain. Among yellows Sensation must get a prominent place on account of its large blossoms. Kaiser William grows and blossoms freely enough, but many dislike the color. Gibbons is the biggest and most fragrant dark crimson carnation that I know. It is of tall, vigorous habit, copious enough in its season, but I did not find it perpetual. It is grown in some private gardens around Boston, but, so far as I am aware, not in the trade. I am out of it and wish to get it again, but do not find it advertised. One Boston grower writes me that "it would not pay us to grow it for less than 25 cents a bloom." Petunia is a full but ragged flower, still the ladies are very fond of it. Mrs. Harris has a vigorous constitution and large, perfect flowers; some like it, some don't. I don't think it will pay the cut-flower florist to grow an extensive variety of carnations; better confine himself to two or three sorts that he finds are the best and most profitable with him.

So long as the perpetual carnations keep on blooming in ample quantity it does not pay me to also force the "hardy pinks." These last come in well from March till May. I find that the success of carnations depends much upon the cuttings from which they are propagated. Stout, clean, healthy stocky cuttings should always be selected.

Fancy Bedding.

We give on this page an illustration of a vase seen the past season on the

grounds of Mr. J. C. Easton at La Crosse, Wis., the work of Mr. P. E. Steves, florist, of that city. The vase is a wire frame filled with earth and the outside planted with alternanthera, the base being of echeveria. The vase occupied the center of a handsome bed of alternanthera and echeveria as shown in engraving.

Tomatoes as an Auxiliary Crop Among Carnations.

BY CHARLES T. STARR

In 1883 I first commenced, by way of experiment, the growing of tomatoes in winter by planting them towards spring in the beds of carnations that were bedded on benches for winter flowering, and, finding it fairly profitable, have continued it ever since on a much more extended scale. My modus operandi is as follows: The variety to plant is very important; I use the Improved Trophy, obtained by ten years careful selection from a few of the finest and most perfect specimens. Such seed cannot be bought at seed stores. The Mayflower and Mikado are used by some of my neighbors, but the latter has an objectionable color and foliage too dense. Seed is planted in October, when large enough to handle, transplanted into pots, and shifted as soon as roots fill the soil until about the 1st to 15th of February, by which time they should be commencing to bloom; they are then planted in the benches among the carnations two and one-half feet apart in the row.

We bloom our carnations in wide span-roof houses facing south, in which are four benches and three walks; the outer benches are four feet wide each, then 2-foot walks, the two benches in the middle being one four and the other six feet wide with a 20-inch walk between them. On these middle benches we plant one row of tomatoes down the center of each, without removing the carnations that are still blooming, except the row in which

we plant the tomatoes. Here they are grown for a month or more, being kept tied upright to a 4-foot stake, and kept trimmed more than a rampant grapevine, and interfere, but little with the crop of flowers up to that time; but the thumb is used on them almost every day after they get fully established in the beds, and the warm, bright days of that season begin to instill new life into all plant growth.

We allow the first fruit cluster to form about eighteen inches from the ground; as soon as it is fully developed pinch out the growing end beyond it and all sprouts except the one immediately below it, for they will start out at the axil of each leaf. When the sprout left in turn develops, the next fruit cluster is treated in the same way. By the middle of March they have reached the tops of the 4-foot stakes and have some fine clusters of green fruit; all but three or four of the finest is removed. We now make a rack by cutting 3 x 3 scantling into 15-inch lengths, to one end of which we nail a 2 x 2-inch lath. A row of these are run down each side of the 4-foot benches, standing the 15-inch pieces on end on the soil among the carnations, and a 15-inch piece placed about every eight feet to support the lath, on top and across which we tack 4-foot plastering lath one foot apart. The vines are then taken down from the high stakes and laid upon the lathing, which allows two and one-half by four feet of space for each plant. The carnations continue to bloom under and through this lathing until the latter part of May, the partial shading at that time of the year securing rather an advantage than otherwise.

After they are laid down the trimming process is for a time changed, allowing them to cover the whole space with side arms, after which the stopping is vigorously continued and even a part of the foliage cut off. The fruit hangs through and beneath the lathing where it has air, never rot, is easy of access and attains a finer flavor than when grown in any other way.

As soon as the plants begin to blossom they are gone over every other day with a fine camel's hair brush, dusting it lightly into each flower and from one to another to spread the pollen, else but little fruit would set, for we have shut out with our glass houses the bees and insects that nature has provided to do this simple but necessary operation. Much water is required at their roots, but the soil in which the carnations were growing is amply rich for them, and we do not spoil them with liquid manure. We never shade the houses. Our fruit last season averaged a half a pound each, many of them weighing from one up to one and a half pounds, while one specimen weighed thirty ounces. Through April and May the fruit commands from 40 to 50 cents per pound. From one house of two rows of sixty plants—we realized from April 1, to July 15, 500 pounds of tomatoes which netted over \$100—which cost very little fire heat and utilized the space after the carnations had exhausted themselves and were not in so much demand. Don't put up houses on purpose to grow tomatoes, expecting to get much fruit before April, for it won't pay; you can't make sunshine, and without it in abundance you can't have much fruit. Besides the demand in mid-winter is limited and price no higher than in the early spring months. I might say that the demand for greenhouse tomatoes has increased about tenfold since '85, mainly, I believe, on the superiority of the greenhouse-grown fruit.

Her Majesty.

BY L. N. MAY.

This rose is in for a larger share of abuse than any other known variety, and yet perhaps it is a premature scolding, if the accounts we heard of it from the other side are all true, and we have no reason to dispute them so far as the raisers' description of it is concerned. Let me ask if it has ever occurred to the many grumblers about mildew on this rose, that the treatment here is so totally different to what it was subjected to in England that it has not yet become acclimatized. I do not want any of your readers to think that I am singing the praises of this rose, but I only ask them to wait till it is proven that it really is the worthless thing they want us to believe it is before universally condemning it. In my experience I have found a good many roses that have required more than one year to become serviceable to us.

An illustration of this point is in the now popular variety, Papa Gontier; I, with several other growers of my acquaintance, had this variety at the same time Mr. John Henderson received it, but that season the birds came so poor with me that I considered it of no value whatever for forcing, and I presume it was about the same with the others who tried it, for in nearly every case they threw it away. Had we kept it on trial another year I presume we should have changed our opinion of it just as much as Mr. Henderson has done, and may it not possibly be so with Her Majesty?

I have received a great many letters in reference to this rose, and to the writers of all I wish to say that I have just pruned a house of it which I intend starting up soon, and if it blooms as I think it ought I shall be very pleased to show it to any one about the 20th of next April. If it does not bloom freely it will go to the rubbish heap in a very short time after that date, and I will immediately inform your readers of the fact, should the occasion arise. That the rose is a superb thing, when in its beauty, all are ready to admit who saw it in bloom here last spring, and if it will only bloom freely it must be a grand acquisition.

In England it was treated to a long winter rest and natural growth in the summer, but as soon as it landed on this democratic soil it was rushed into heat, forced for all it was worth, budded, grafted, and cuttings of all and everything which had life in it was stuck in sand to multiply it as fast as possible; a totally different treatment, to which it could hardly be expected such a strong, rampant grower would submit without showing some ill effects; hence my reason for saying give it another trial before condemning it.

Orchids for Cut Flowers.

CONSULTEE.

Unless orchid flowers can be sold at popular prices, it is not likely that there will ever be any extensive demand for them. Consequently, unless the plants can be bought for a moderate figure, it is useless to attempt growing them for profit. The writer mentions those only which can be so purchased, and which he is sure, provided ordinary care be given, will be satisfactory in all respects.

Many of the cypripediums are easily managed, and as the flowers of all of them are handsome, and have good keeping qualities, they are very useful for a florist's work. The price of several of these, also, debars them from ever becoming gener-

ally cultivated, and those of us who market our flowers, must be content with the cheaper and commoner kinds. The cypripedium can be grown in a medium temperature, but unlike the cattleyas, they require water at all seasons of the year. The soil used is of various kinds, some preferring loam with a little manure, others peat and loam; others, again, use peat and sphagnum. They can be grown either in pots or pans, according as the fancy of the grower dictates.

Phaius grandifolius and *Phaius maculatus* should also be included in this list of orchids for cut flowers. Some years ago *P. grandifolius* was much more cultivated than now, but in this season of roses it seems to have disappeared almost entirely from the benches of our florists. The reason would be hard to state, for of all orchids, not one is more easily managed, nor more freely flowered. When the *phaius* is well grown, the flower spikes attain a length of two feet, and are of striking and noble appearance.

It seems a pity that this old friend should have become so neglected. A mixture of loam and rotten cow-manure will be found a suitable compost. The young leaves are liable to spot if water is syringed over them.

A. E. W.

Twin Flowered Cypripedium Insigne.

Respecting Mr. Matthews' note on this, I may say that it is by no means an unusual occurrence, but seldom so large a percentage are twin-flowered. We had about 500 flowers this season, and out of these no more than 2 per cent were twins. I think that perhaps division and repotting may have something to do with increasing the number, as I noticed a larger percentage after they were repotted two years ago.

The freak is by no means confined to the *insigne*, but is more or less general in all the cypripede. We have a large plant of *C. barbatum* which for several years gave fully 75 per cent twin flowers; this last year, decreased to 10, and this year, I find none. *C. niveni* sometimes gives three flowers to a stalk; other varieties in which I have noticed the freak more generally, are *Spicerianum*, *Harrisianum*, *Concolor*, *Lawrenceanum*, *Venusium* and varieties of *barbatum*. I like Mr. Matthews' style of potting and would recommend not to repot very often, but give food in the form of weak liquid manure. I think more flowers can be produced this way and certainly room is gained.

F. G.

Nasturtiums in Winter.

We run scarlet nasturtiums, varieties of *Tropaeolum*, *Lobdianum*, along twenty rafters in our carnation house. They are grown in 8 and 10-inch pots, raised on shelves, and the vines of each plant are tied to a string run along a rafter. Two sets of plants last from October till May. They do not shade the carnations much, as they do not make large fleshy leaves such as they do when grown out-of-doors. They bloom continually. We grow them in rough, rich soil, and mulch the pots with manure. In a light, sunny house having a night temperature of 55° they attain greatest perfection, but even in our carnation house, which we run cool, say 45° at night, we cut 100 blooms a day. For home use they are capital; they last a long time, and their brilliant color is unexcelled. For shipping they are not so good, because so easily bruised; still, anyone who can pack camellias, gladiolus, or orchids, can pack nasturtiums, and that, too, with much less trouble.

W. F.

Lamarque Rose.

Poor Lamarque! Rejected by the trade, and still so free, so full, so white, and so lovely! It travels poorly and is easily tarnished; true enough, but for the home market, isn't it a noble rose?

As an old trellis rose, planted in a loamy border, and spread out some fourteen or sixteen inches from the glass, it certainly is one of our grandest roses. In a span-roofed house we have a 300-square-feet sheet of Lamarque, from which we now are cutting large quantities of magnificent flowers. It is a good grower, vigorous, healthy, and not very liable to mildew.

By perfecting good wood early in the year, timely thinning and stopping in fall, and full exposure till November, then shutting up and forcing, they come in good for Christmas and last in profusion through January. Pruning and starting later will bring them in later.

W. F.

PLANT NAMES.—Apropos of the many interchangeable names which have been attached to poor, inoffensive plants, a writer in the *London Garden* quotes the following from the diary of a gentleman describing the visit of a friend. "He was much pleased with my arrangement of a clump of *Helianthus multiflorus simplex maximus* in a bed of *Petunia hybrida nana compacta grandiflora*, with background of *Cupressus Lawsoniana erecta viridis argentea variegata*. Gave him seeds of *Hellebores* Apotheker Bogen and *Commersonia* Benary. N. B.—Must really remember to ask Lacon not to bring his dog Rob with him in future. The brute got into the orchid house and knocked down the *Odontoglossum Pescatorei* Vervaeckium and the *Campylobotrys Ghiesbreghtii variegata*, and then went and scratched up nearly all my *Matricaria eximia nana aurea crispa*, and rolled in a patch of *Helichrysum monstrosum nana atro-sanguineum flore pleno*."

CYPRIPEDIUM DAYANUM.—We have a small plant carrying one flower. This bloom opened on Oct. 16, last, and continued open and in good condition till Jan. 20, a period of some four months. Average night temperature before Christmas 55°, since then 60°. This is the longest period of duration in any flower that has come under my own observation.

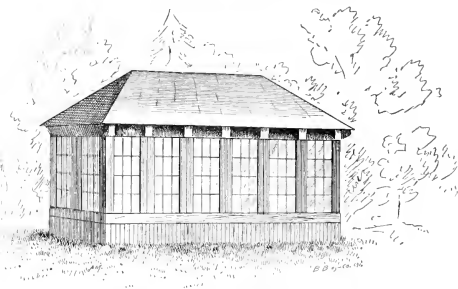
W. F.

FROM LONDON GARDENS.

PRIMULA OBSCURICA.—This pretty Japanese primrose is scarcely ever out of bloom; even now it is bearing numbers of mauve tinted blossoms. In this respect it forms a good companion to the perpetual-blooming *P. floribunda*. In one point, however, it surpasses that kind, and that is temperature, which has lately played great havoc with *P. floribunda* by destroying nearly the whole of its foliage and greatly disfiguring its blooms, have not injured *P. obscurica*, though growing under the same conditions.

H. P.

BEGONIA SOCOTRANA proves itself to be the most persistent winter-flowering of all begonias. At Kew, where almost every cultivated species is grown, it is the only one that makes a show. There is a group of plants of it that for weeks past have been the feature of the begonia house. The flowers do not drop, as those of most other begonias do, but rather away without losing their color. This color of rose pink bloom is very cheerful at this almost flowerless season. When the *socotra* begonia was first introduced it was thought that good things would result by hybridizing it, but as yet none of the hybrids raised from it surpass the original.



FIRST AMERICAN GREENHOUSE

The First American Greenhouse.

We present herewith an illustration of considerable historical interest to the trade, being a sketch of the first greenhouse erected in America. It was built in 1764 as a private conservatory on the grounds of James Beekman, New York city, the site being the center of what is now 52d street, a little east of 1st avenue. No glass was used in the roof, and it presents many other oddities of construction, at which the florist of the present day will undoubtedly smile.

When the patriot spy, Captain Nathan Hale, was captured, he was confined over night in this greenhouse under a strong guard, and was executed early the next morning, Sept. 22, 1776. The sketch shown was made in 1852—a few days before the greenhouse was demolished for the opening of 52d street—by Mr. B. J. Lossing, L. L. D., the author of a book entitled "The Two Spies," from which Mr. Lothrop Wight has furnished us the above facts.

What it Costs to Move Greenhouses.

Mr. Charles Hartwig, a Chicago florist, who was pushed out into the suburbs by the rapid increase of dwellings, has been obliged to tear up and rebuild. In a recent visit to his new establishment, we became curious to know how much was expended in its construction and how much of the old was available. It was not surprising to learn that the salvage was very small, and the cost of removing the old material was nearly all it was worth. The greater part of the salvage consisted of 60 boxes of glass (more or less chipped), and 2,500 feet of 4-inch iron pipes. The old boiler was found to be worth little more than old iron.

The new houses, built mainly for rose growing, are four in number, each 100 feet long by 22 feet wide, and one propagating house—11 x 100 feet. They face south-ly with short back roof, and are 11 feet high at the apex. The propagating house has a northern exposure. One outer wall of course answers for all, and this is constructed by setting rows of stout cedar posts, on which are nailed matched boards. This is closely covered on the outside with thick building paper, and the paper with ordinary siding. The benches are supported by cedar posts, with raised walks between. All wood-work below the ground, or when exposed, is well tarred.

The heating apparatus is in the center, a space of 18 x 100 feet, giving abundance of room for necessary work. The system of heating is by hot water, heated in a Devine boiler 10 feet long, fire-box 3 x 4 feet, breeching two feet, with 56 4-inch flues. There is one 6-inch and one 4-inch flow and two 4-inch returns to the boiler. As may be readily imagined such a boiler properly fired is very powerful. A wheelbarrow load of coal, soft slack, or Erie screenings, which is used exclusively, suffices to heat up the pipes in an hour. Abundance of heat can be obtained in the coldest weather without crowding the boiler, and enough power for extension of the system with only the one boiler to fire. The chimney is of brick, 32 feet high, giving great draft for the flues. About 5,000 lineal feet of 4-inch pipe are used, to heat a space covered by glass and boiler-room of 100 x 210 feet. The old establishment consisted of four small houses 9 feet high, and on a space of ground about 60 x 100 feet. All the old material that he could use advantageously was worked in; yet the amount expended was about \$3,000, and it was divided up as follows:

Boiler	500
Breeching and setting same	200
Chimney	200
Pipes, conductors, etc.	500
Labor, exclusive of regular help	250
Glass	600
Lumber	250
Roof to boiler-room	35
Nails	25
Oils and paints, sundries	50
Heating	75
Total	\$3,000

This is exclusive of all the old material. As these items were obtained without close calculations, it is reasonably safe to say that the cost of the regular help of the establishment added, and the odds and ends, will make the actual expense not less than \$3,000. The old material was possibly worth \$500 to \$700, all told.

EDGAR SANDERS.

A NEW PALM has been discovered in Florida by Prof. Sargent, of England. It is not only new as a species but sufficiently distinct to constitute a new genus. It is proposed to call the plant provisionally, *Pseudo-Phoenix Sargentii*. The trunk is ten to twelve inches in diameter at the base and twenty to twenty-five feet high, with leaves four to five feet long, pinnately divided. Only six individuals have been found.

Hot Water Under Pressure.

BY CHARLES ANDERSON.

I am quite willing to give the readers of the *FLORIST* my experience on the above subject, but I must commence by asking their indulgence, as I feel unable to give anything but the results of my observations of the present winter. And I might add that if the same pressure had been exerted over water to become heated and circulated that has been brought to bear on your correspondent to give his views on the subject, hot water under pressure would have been as hot as any one could wish.

I can perhaps do no greater benefit to the readers of the *FLORIST* than to try to describe the apparatus as arranged and constructed to heat a set of houses four in number, 16 x 210 feet of the ordinary three-fourths span style, adapted to the growth of roses or other plants that require a temperature of 55° to 60°. The boilers, three in number, are placed in a cellar with one flow pipe connecting with an expansion tank, which is elevated above the doorways of the houses and directly over the boilers, being of sufficient dimensions to contain all the expanded water and leave at least one-third of the space of the tank for steam. The arrangement of the pipes from this point may be said to be on the down-hill plan, all the pipes descending to the bottom of the boiler. Each pipe is fitted with a valve, giving complete control of the temperature. The tanks have each a 5-lb. safety valve placed on top and a glass water gauge. The arrangement of the pipes permits of one, two or three being used as required, also the boilers may be used in like manner. There may be points in the description given that is not quite clear to your readers, and to others the details may be tedious in the extreme.

The results of a trial will convince anyone of the advantage of the plan over the old system of heating. I may suggest that the days of trying to boil the kettle with the cover off (which is practically what we have been doing), is past. From my observation I should say that a 2-inch wrought-iron pipe on the above system is the equivalent of a 4-inch cast-iron pipe on the old plan of hot-water heating and that three boilers are equivalent to in heating capacity, the attention four required being reduced to the minimum.

Another advantage is that the system may be adopted without any deep boiler-pit, as all that is necessary is to give the return pipes a descent into the bottom of the boiler. The attention required is no more than any hot-water boiler requires, and it seems to me that it must become the popular heating system for the great mass of florists of this country. It is safe, requires very little attention, costs but little, requires no skill to run it, and any good cast iron hot-water boiler will answer the purpose, and if the pipes are arranged properly it must prove satisfactory.

FLUSHING, N. Y.

New Greenhouses at Calla, O.

Messrs. L. Templin & Sons, Calla, O., have just completed one of the finest ranges of houses I have seen for a long time. The houses are ten in number and cover a ground surface of 90 x 170 feet. Nearly all of the houses are 20 feet wide; this width of house is considered by them to be the most economical for growing all kinds of plants, even the small mailing plants doing better in them than in the commonly used 11-foot house. Of course it takes more heating surface to maintain a given temperature

in one 20-foot house than in two of 10-feet each, all being of the same length, but the plants appear more "stocky" and healthier in the wide house than in the small ones. For the bottom of their benches they have used slate instead of wood, and all the wood-work liable to be rotted from moisture was thoroughly soaked with oil. The sash bars are all grooved to carry off drip, and the glass sashes with the tin joints recently advertised in the *FLORIST*. The joints make the roof perfectly air-tight, but more drip results than when glazed in the old style, as there is no escape for the water which condenses on the inside of glass.

Both old and new ranges of houses are heated by steam, the boiler used in the new one, being constructed specially for greenhouse heating; it has a heating surface of over 400 feet, and judging from the ease with which it heats the ten houses, besides the offices, packing and potting rooms, another ten houses the same size could be heated with it without having to carry a very high pressure.

M. MILTON.

Azaleas and Camellias.

The principal collection of azaleas intended to flower in May and June require but little attention at present. They should be placed in a cool-house, well ventilated, and arranged so that they are not too much crowded. Some persons keep their plants too dry at the roots during the winter, evidently with the best intentions, the main object being to rest them. This over-dryness at the roots is an evil which tells upon the health of the plants for a long time after the winter is past. The sandy peat in which the plants have been potted is generally so thoroughly permeated with roots, that it is difficult to get water through the mass, when once they have become dusty dry. The plants ought to be moderately dry before being supplied with water, and when it is applied, enough should be given to thoroughly saturate the soil. In an over-dry warm greenhouse thrips and red spider will not only exist during winter, but will increase and do mischief. Tobacco-smoke will destroy the thrips, but does not touch the red-spider; it cannot, however, stand tobacco in solution. Soft soap dissolved at the rate of two ounces to the gallon of water and half a pint of tobacco liquor added to two gallons of this soft-soapy water, will destroy both spider and thrips. The dead and decaying leaves should be removed with as little delay as possible. The early-flowering varieties should be placed in a gentle heat early in the year. The double-white varieties are excellent for early flowering. The leaves may be syringed daily underneath after the plants are placed in heat.

Every autumn and winter we hear complaints of the flower-buds of camellias dropping off, and the cause of this is often a puzzle to the owner of the plant. Over-dryness at the roots or the plants, or a very dry atmosphere caused by fires or hot-water pipes, will cause the buds to drop. Any sudden changes will cause it, such as bringing the plants inside after being out late in the autumn; the change from the leaves being nightly saturated with heavy dew, to the relatively dry atmosphere of greenhouse or conservatory, is an illustration of this. The change should be gradual. Let the leaves be kept quite clean during winter by sponging when time can be spared, the plants also like a fair supply of water at the roots.—J. DOUGLAS, in *Gardener's Chronicle*.

Cincinnati.

Robert A. Kelly has opened up for business on West 4th street. Hugo Muller sold a plant of the *Narcissus orientalis* last week, upon which there were 142 perfect flowers.

Tiny baskets of violets, roses and lilies of the valley were the favors of the Floral exchange made up for a Mikado garden.

Over 500 choice roses were used in a round table, flat, five feet in diameter, made by Sunderbruch for a Queen City club dinner.

Since I last wrote daffodils have come in, Tulips, though plentiful, do not seem to "take" as well as they did last year. Lilies are also in big show and the windows are very attractive.

Boutonnieres are nearly as large as a cabbage, and a New Yorker enjoyed the attention he attracted by appearing on the street with a bunch of violets as big as his fist on the lapel of his coat.

A new funeral design was sent out by Sunderbruch for a mason. It was a globe of white flowers upon a pulpit of carnations. Niphetos rose buds and lilies of the valley. On the face of the book there was traced a square and compass—one in red carnations and the other in violets. The border of the volume was made up of yellow immortelles to resemble gilt.

The design Critchell made for the funeral of a bank cashier at Greensburg, Ind., was certainly novel. It was a ledger of white carnations, euphorbia and lilies of the valley upon a "desk" of ferns. On the base in letters of white immortelles was the inscription "Account Closed." Upon the book had been thrown, as if carelessly done, a quill pen whittled out of a cypress leaf.

At the recent german some of the favors were floral. Sunderbruch arranged the corsage bunches and boutonnieres exchanged, to form a four-leaf clover six feet in height. The boutonnieres for the gentlemen were all tied with silk ribbon, bows and streamers—a new idea that has caught society's fancy. One favored belle at the german carried a bouquet containing thirty American Beauties—a *Spartite*. Not many bunches of that kind are made up here.

Frank Hintsman decorated a house from top to bottom for a reception last week. Finest floral display of the winter.

There were no designs but lots of foliage was used to advantage with rose blooms. One large blue and white spray which was universally admired was flanked by great palm leaves between which had been thrown an armful of the crimson poinsettias. He also made up a pretty prize for a enchire party. It was a basket of white carnations with a diamond center of Bon Silene rose buds.

The florists, in common with other tradesmen, are blue over the prospects of another disastrous flood. Since the costly experiences of '81, many florists who had flourished on the low lands took to higher ground. They are glad they did so. Already the waters have surrounded Glin's greenhouses, and a rise of a few more feet will drown out Vetter and Walz in Cumminsville, and Underwood at Ludlow Ky. Bohia, Gray and Boulman, other growers in the vicinity of first named suburb are above the danger line. The market gardeners, the fellows who "cut" so on flowers and knock the spots out of business, are all under water.

"REN."

IN THESE days of special manures, how is that one for roses has not yet appeared? Also one for carnations? R.

Trade Notes.

BROOKLYN, N. Y.—W. C. Krick has removed to 1107 Broadway.

CEDAR RAPIDS, IOWA.—Mr. Samuel Bowers, a well-known florist and nurseryman, died suddenly of heart disease, Jan. 2, last.

EASTHAMPTON, MASS.—Edw. H. Howland has removed to Holyoke, Mass., which will now be his business headquarters.

CENTRETOWN, PA.—E. V. Coleman has sold his interest in the greenhouse business here to J. E. Black, of Grove City, Pa.

PITTSBURGH.—The window glass combination decided at its meeting Feb. 3, to increase the price of glass from 5 per cent to 7 1/2 per cent, the same to take effect at once.

GENEVA LAKE, WIS.—S. M. Allerton has built a new house 100 x 15. The florists here have hardly recovered from the severe hail storm which destroyed much glass and stock last June.

NORWICH, CONN.—John Spalding recently finished two new houses 18x60 each. G. Geduldig has built a new house 24x60, with a part partitioned off for palms; this part is 16 feet high and is covered with ground glass.

CHICAGO.—Charles Reissig is drawing plans for a large house for tropics to be erected the coming spring. It is to be circular in shape, of ornate construction, and will house a fine collection of orchids and other tropical stuff.

INDIANAPOLIS.—A call will soon be issued to the trade in Indiana for a meeting to be held Feb. 22-23 in this city to organize a state horticultural society. All interested are requested to attend.

W. BERTKMAN.

LOS ANGELES, CAL.—I find flowers quite scarce here; roses are poor, none being cultivated under glass and out-of-door plants have suffered some from dry weather. Roses sell now for 50 to 75 cents a dozen and carnations 25 cents at retail, but choice flowers are very scarce; in fact, I have not yet seen any among the florists, but in private grounds almost everywhere that is choice may be seen. Poinsettias flourish here as lilacs do in the east. C. B. W.

WASHINGTON. The District of Columbia Hort. society elected officers and enjoyed a social reunion Jan. 15, last. The officers now are: John S. Paul, president; Thos. W. Fowler, Dr. Basil Norris and Howard L. Prince, vice-presidents; Daniel S. Curtis, secretary and John T. C. Clark, treasurer. At a recent dinner given by the president to the diplomatic corps, the central table decoration was what Mr. Piester called a representation of the hanging gardens of Babylon. It was composed of three arches that were met by inverted arches from the top. These were filled with Bon Silenes and Murchel Nells, while the crests were tufted with lily of the valley, and the ends filled with red and white azaleas. The diamonds made by the meeting curves were filled with white and red carnations; in the center was a red camellia and at the corners were sprays of acacia. Under the gardens were moored birch bark canoes filled with heliotrope and carnations. At each end of the gardens were two large round bouquets of loosely arranged, long-stemmed roses.

L. A. S.

THE ILLINOIS STATE HORT. society will hold its next meeting in Princeton.



FLORAL FAN.

Floral Fan.

Our house-bone illustration on this page is not intended to represent a novelty, but rather a conventional design gotten up in an elegant manner. The design illustrated was arranged and shown by the B. A. Elliott Co., of Pittsburgh, at a floral exhibition given by them. There has been considerable inquiry from those of our readers who are located at a distance from the larger cities for information on the simpler details of floral arrangement, and believing that engravings of well-made work would attain this result in the best way, we offer this as a beginning, hoping to follow it with others as we obtain suitable subjects.

Winter Flower Trade in Paris.

A gentleman who spent New Year's day at the French capital writes: Visitors to Paris at this time of the year find their principal "distraction" in promenadeing des Capucines, for this is the home of the flowers. Enormous masses of lilac, huge wreaths of violets, and bouquets composed of all manner of blossoms fill the windows of the "swell" florists' shops. There is, of course, a fashion in flowers, as there is in everything else, and at this moment the flowers à la mode are the eucharis, the red anthurium and the orchid. Of the latter there are innumerable varieties, and they are the recognized blossoms to send to friends to-day—so those arbiters of taste, the Rothschilds, have decreed. Most of the orchids which are being admired to-day in the boudoirs of the Faubourg St. Germain and in the salons of the big mansions in the vicinity of her Britannic majesty's embassy come from Belgium. Other popular flowers in Paris on this opening day of '87 are white lilac,

roses, and camellias. We are assured by a competent authority (otherwise we could not have credited it) that there is a greater trade in flowers in Paris than in all the other capitals in Europe combined. Between Christmas day and New Year's day this floral business assumes colossal proportions, and it is said to be a fact that at the Halles and at the shops of the 580 florists no less a sum than 3,000,000 francs is spent in this festive week.

THE NEW JERSEY HORT. SOCIETY met at Orange, Feb. 3, for the election of officers for 1887. They very wisely re-elected Jas. R. Pitcher president. There is not a more genuine lover of horticulture in the state than this gentleman, and he is ever ready to send large numbers of choice specimens from his valuable collection to all the leading exhibitions, regardless of the expense incurred. The other officers elected were H. J. McCall, treasurer and J. D. Kearns, secretary. Under such able officers we look forward to a prosperous year for this society.

SARATOGA SPRINGS, N. Y. Mr. S. F. Terwilliger has a toad in his greenhouse which has proved to be quite weatherwise and to be far superior to the human weather prophet. A day or two before a cold wave strikes the city the toad mysteriously disappears, and when a warm wave is coming he reappears accordingly. Careful observations on several occasions showed the toad to be correct every time. There should be a great future before the toad-a-meter.

IF PRIMROSES have quite filled the pots with roots, they may be fed with a little clear manure water to increase size of flowers. Take care not to wet the crown of the plant, as if moisture is retained there rot will result.

Cut Flower Shipments.

On reading article on page 210 under this heading, allow me to say that although the writer was on the committee of the S. A. F. who made the report quoted as to responsibility of shipper, later experience convinces me that this should be modified to make the shipper responsible for the loss of flowers injured by frost when same is not caused by undue delay of express company.

If packing is done in such a hurry or by such incompetent or careless help, that the flowers are not secure from freezing under ordinary exposure, the shipper should be responsible. As it is, the shipper can feel that he is protected in any remissness at the buyer's expense, and to the latter it may cause far more loss than the mere cost of the flowers.

I believe, however, that the time is coming when through improved packages and increased skill in packing, the loss of flowers in transportation will be greatly lessened. With our present knowledge and facilities, it could hardly be considered safe to ship flowers any distance with the thermometer at 20° below zero as you state in comment on previous article.

In such a case the shipper would be consulting the interest of buyer by holding the shipment. If he was held responsible for loss of flowers he certainly would hold them.

Express-men are obliged to hurriedly handle such a variety of packages that it is discouraging to try to get them to single out boxes of flowers as their outwardly appear, and give them special treatment as would be often needed under the varying exposure to both heat and cold, etc.

D. B. L.

[Flowers have been shipped from Chicago with the thermometer 32° below zero, to Winnipeg, Manitoba, where the mercury registered 45° below, arriving in good condition, but more than ordinary packing was used.]

Mr. L.'s suggestion to "hold the order" is not original, neither is it as good as some we have had from him. For instance, suppose his telegraphic order is held until the funeral is over?

In commerce the world over, "goods travel at buyer's risk." Goods in transit are insured by the buyer, if he wishes to assume no risk. It is a decided object to shippers to pack goods as carefully as possible in order to hold the customer's trade. The latter has a remedy continually at hand, viz: to transfer his trade to a shipper who will give satisfaction in this respect.—Ed.]

Sericographa Ghiesbreghtiana.

The awful name of a bright and pretty little winter-blooming plant that is easily cultivated and well worth growing. I grow it in quantity, in 6 and 7-inch pots. 1 or 2-year-old plants, plant out in summer, lift and pot in September, keep in frames till October, then in a greenhouse with night temperature of 50° to 55°. It blooms in December and is in perfection at Christmas. The flowers are small, bright red, in elegant sprays. In cutting, I cut over the whole plant at the neck. Then store the pots aside till new growth starts, when I take the tips for cuttings. It isn't as bushy a grower as a libonia, but is earlier, brighter, and more elegant and desirable. It likes sunny quarters when budding into blossoms.

W. F.

A PLUME of *Enallia japonica* makes excellent "smoke" for a floral steamship.

Warming Water for use in Greenhouses.

I have in use a simple arrangement for heating water or manure water by steam, which I constructed with two old rum barrels, as shown in accompanying sketch. From one barrel I removed the head and placed it on a bench in a convenient place near the main steam pipe, this one is used to hold the liquid to be heated. At the bottom I attached a hose connection boring the hole just large enough so that the tube could be driven in tight. For making liquid manure, straw was then placed in the bottom to the depth of one foot for drainage, placing a few bricks on top to hold it down, and the dressing as two bushels was put in and the barrel filled with water. The steam is turned on through hose A and left on until the contents of barrel boils, which is allowed to stand over night to cool and is then drawn off into barrel B through hose C. Hose A is then connected with barrel B, using a common hose connection, taking care to drive same tightly into the head of the barrel. The steam is then applied, and of course forces the contents of the barrel through hose D and can thus be conveniently and cleanly applied where wanted. Clear water may be warmed and used in the same manner. I use no pounds pressure; if more is used the barrel should be made stronger by using heavier hoops, and an iron may be bolted through both heads to help them stand the increased pressure. But one valve is used, making the cost very small—about \$2.25, not including hose. Where a quantity of water is required at one time, more barrels may be added, connecting them together.

New Bedford, Mass. E. S. HASKELL.

A New Botanic Garden.

The establishing of a great botanical and horticultural garden in Los Angeles county has been agitated for some time past, and the proposal has met with such enthusiastic welcome, that its success is already assured.

Scientists after visiting the various portions of the United States, with a view to selecting a location for a botanical garden, give it as their opinion that the high lands of Los Angeles county present the most flattering conditions of climate, soil, elevation, etc., and think that for the purpose there is no superior location in the world. The projectors intend to gather into this garden the gems of creation from every nook and corner of the earth and practically illustrate their value for usefulness or ornament. The garden will be one of the most useful institutions ever established in the United States, and one of the grandest in the universe. The grounds will occupy a large number of acres and the arrangements will be in the highest order of natural art, combining the richest flora of the tropical temperate zone.

In no other spot, or country, will so many temperate, tropical, and semi-tropical trees and plants thrive in our common field.

The gardens are to be eminently useful; our country is sadly in want of an institution where all accessible life will demonstrate its usefulness to mankind, our own country in particular, here many valuable plants and seeds can be tested, acclimated and disseminated to the great good of the country at large. Our Pacific states are greatly in want of timber trees suitable for their climate and soil, and a knowledge of plants that will thrive and make productive their now barren hills. We pay a vast revenue to

foreign countries for medicinal plants and drugs, most all of which can be grown with an immense profit in our own country.

Every year we send hundreds of thousands of dollars, millions, away for perfumery, oils, varnishes, dyes, India rubber, teas, coffee, spices, dried fruits, and a hundred things that can be grown with a profit at home, giving occupation to thousands of our citizens, who would gladly utilize their lands if they knew what to plant, how to plant and how to market the product; all this we want to illustrate. In fact the gardens are to be a great free school.



We hope to do for science what has been attempted but never accomplished. Here we will have almost the entire flora of the earth, correctly labeled, not weak greenhouse plants, but the most magnificent specimens, thriving in their native element. For agriculture and horticulture, pomology, floriculture, we will grow every grain, vegetable, fruit and flower, that will thrive, saving an immense amount of time, labor and disappointment, which always accompanies experimenting, testing, etc., by private parties. In connection with the garden we hope in time to establish a museum for the preservation of specimens, for a botanical and horticultural library, and to contain scientific rooms in which insects, diseases and structures can be examined and experimented on.—PROF. EMERY E. SMITH, in Los Angeles, (Cal.) Herald.

IN ANSWER to the question of C. W. E., as to which variety of lettuce is most suitable for winter forcing, I would state that good results can be obtained by using the Early curled Simpson. It is impossible to destroy the green-ly upon lettuce, after the plants have attained any considerable size, if in great numbers; so that the only way to keep the plants clean is to commence fumigation as soon as the heads are planted, and continue the practice once or twice each week until the lettuce is fit for cutting. A. E. W.

A "LADY FLORIST" wishes to ascertain the exact number of days that will elapse before hyacinths, etc., will bloom, after being brought into the greenhouse from a cellar. The length of time depends upon several conditions. If the bulbs have rooted well in the cellar, and have grown one or two inches, then are placed in a greenhouse where the average temperature is 60 to 65°, flowers ought to be gathered in from fourteen to eighteen days from the time of their removal from the cellar. If a "Lady Flor-

ist" will keep a diary, and note the time she places her bulbs in the greenhouse, also when they flower, she will have a sure guide for all succeeding years. A mistake is often made by removing bulbs of any kind from their darkened quarters to the light before the flower is well up from the bulb; no time is gained by so doing; for, under such conditions, no matter how much heat is given, the flower will always remain stunted and undeveloped. A. E. W.

SALTPEST.—I have heard that this is used to destroy the mossy fungus growing on the soil and pots in greenhouses. Can any reader inform me as to its efficacy, or suggest any better remedy? M.

COCCOLOBA PLATYCLADA.—A few years ago I found that Mr. Henshaw, of Staten Island, grew this in quantity for cutting as "greens" in winter. Since then I have given a lot of it, but it has never met with favor; but it is the best plant to "rough it" that I know; under palms or other big plants or trellis vines, in fact anywhere where it can have warmth and water, it seems to thrive. W. F.

ASTERS.—Can some reader of the FLORIST tell me the cause of the trouble with my China asters? The growth is usually quite satisfactory, but just as the buds start to develop they turn yellow, and sometimes parts or whole of the plant go the same way; about three-fourths of my stock are generally thus affected. I have given them many different kinds of treatment, and secured seed from various sources without noticing any improvement. P. M.

BLACK SPOT.—In using sulphuret of potassium (1 lb. to 60 gals water) as a remedy for common mildew, I noticed that it also appeared to arrest the progress of black spot, and think that it would be worth while for those who are troubled with this fungus to give the above a thorough trial; would also advise its use—say once a week—as a preventive of a re-occurrence of the disease. If we have something to destroy the spores we would have a desirable preventive if not a cure. P. M.

CARNATION PETER HENDERSON.—This seems to have dropped out of notice recently, and Hinze's White (?) which I don't think is white at all, has come to the front. I see Mr. Henderson does not offer his namesake in his latest catalogue. Why is it? I have a batch of 500 doing as well as any other carnations I have seen in this section, in fact, yielding well, and I know of no other variety that equals it for a pure white and good substance. Philadelphia, Jan. 28. TRIOG NAR.

CARNATIONS.—I am glad to see you give so much space to this most desirable flower. G. E. B. has given his opinion of some of the newer varieties, now let us have the opinion of others in different localities. My experience with some of the "magnificent" varieties is anything but satisfactory. I enclose (average size) flowers of varieties which with me bloom well, (mostly on long stems), and until I find others superior shall continue to grow them. The varieties sent are Hinze's White, Alcatraz, Century, Grace Fardon and Mrs. Skinner, the last named variety is a seedling. G. S.

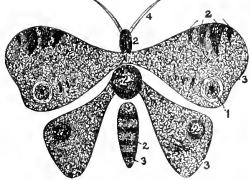
[The last named is a well formed flower of several shades of pink. The value of a carnation depends so much upon qualities which can only be determined by several years' experience with them, that opinions are of no value unless backed by such a test.—ED.]

Suggestions for Fancy Beds.

A short time since, I overheard a prominent florist speak disparagingly of the numerous geometrical designs for bedding, stating that their formal sameness and lack of expression made them tiresome to any one who had seen a considerable number of them.

We were pleased to know that others were growing tired of these everlasting circles, squares, and stars, which we hope may be superseded by more original designs.

There will always be more or less demand for such figures, because they are simple, and easily planted by the gardener, while, on the other hand, far prettier and more appropriate designs for lawn decoration may be conceived.



We believe the time will come when carpet gardening will give place to more artistic arrangements for our lawns, but while there is a demand for it let us use our ingenuity in the choice of designs.

Many pretty figures may be thought of, which will be a relief after the innumerable round beds, squares, diamonds, etc., which are repeated in lawns from New York to San Francisco.

On one of the finest lawns in Milwaukee may be seen a bow and arrow of red and yellow, and on another lawn a floral butterfly, alighted to rest his wings during the warm days.

We may even suggest that fans, parasols, flower-baskets, or any such articles that might naturally be left on the grass, would be unique. These designs would be suggestive of rest and enjoyment, and at the same time not out of place on a lawn, while the conventional crescents and stars have no right there, unless we wish to turn all nature topsy-turvy, and bring our moons and stars down on a level with our feet.

These are but a few examples, but they may suggest possible variations that may be made in lawn decorations.

I append a key showing plants which may be used to produce a proper contrast. 1. Double lobelia. 2. Alternanthera paronychioides major. 3. Alternanthera aurea nana. 4. Echeveria secundula glauca. 5. Pilea Casei, or simply the lawn. 6. Mesembryanthemum cordifolium var. This may be varied by the plants at your command, but if the designs are made of small size it would undoubtedly be advisable to reduce the number of kinds used.

A. G. W.

Give them an Interest.

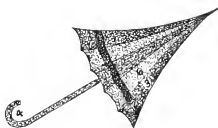
The inclination of the average journeyman florist or gardener to roam about from place to place is well known, many such having been employed a few months in each of nearly every large establishment in the country. Never satisfied, always seeking "fresh fields and pastures new," he wastes all of his wages in moving from

place to place. In the florist's business probably more than any other, a satisfied man who looks forward to remaining permanently in one place, is many times more valuable to his employer than one who is continually planning a move, as the result of his labors frequently do not show until months after the work is done. To keep employees satisfied and to have them take an active personal interest in the *final result* of their work is, therefore, a great desideratum to the employer, and as an attempt to accomplish this end the Jordon Floral Co., of St. Louis, has made the following offer to its employees under date of Jan. 1, '87. The company takes its invested capital for a basis and at the end of the year, after deducting 10 per cent on such capital, offers to divide one-third of the remaining profits pro rata, according to the amount of salary received by each "among all employees who have faithfully served the company for six months or over and are still in the employ of the company Jan. 1, 1888." There are some "tramp florists" whom nothing would tempt to stay in one place more than two months at a stretch, but to the majority of young men in the trade this would undoubtedly prove a strong link to bind them to their position. The result of this experiment in co-operation will be of interest to the trade, and for the good of all it is to be hoped that it will accomplish the desired end. D. J.

[Now, if the employees could only promise to divide a portion of their salaries in case the balance sheet shows losses instead of profits then there would be hope for the employer as well—something to "link" him, as 'twere, to the business.—Ed.]

My Method of Starting Early Flowers.

In growing pansies and other early spring plants from seed, I plant the seed in February or March in pan-boxes 12 x 16, and 2½ inches deep, covered with glass; as soon as up I remove the glass, giving air and light, and when the third leaf appears transplant into other boxes of the same size, divided into compartments as follows: In the bottom I make parallel grooves, lengthwise and cross-



wise one inch apart, with small drainage holes in the grooves so that each compartment has drainage from each of its four sides; then place thin strips of zinc, tin, wood, or prepared paper, of a proper length and width, upright in the grooves making 165 compartments; I then fill in a thin layer of coarse sand to facilitate drainage, and fill up with rich prepared soil, and dibble a plantlet into each compartment, after which the treatment is as usual, giving all the air and light the plantlet can stand, making strong, stocky plants. In removing the plants from the compartments the partitions are first to be drawn, when each plant with its soil intact and rootlets undisturbed may be lifted and removed to enlarged quarters, bedded out, or sold. Stronger-growing plants, as the aster, etc., will need larger

compartments, according to the nature of the plant. Try it. Chicago. JOHN LANE.

AND NOW they are "making flowers from goose feathers," and says the *Detroit Tribune*, "when made up into bouquets, ornaments, etc., they can with difficulty be told from choice natural flowers, the coloring being strictly true to nature and the shapes coming as near perfection as human ingenuity can make them." We would like to see some florist attempt to "pass" them for natural flowers on the average buyer! Oh, no! It will be some time yet before that "difficulty" will arise.



EVAPORATING TOBACCO JUICE.—I thought that I was the discoverer of this method, but I see by the Jan. 1 number of the *FLORIST* that others have found it preferable to smoking. For the last year I have kept shallow zinc pans on the flues or heating pipes, in which I keep a supply of tobacco stems always covered with water. It evaporates at the rate of eight to sixteen gallons a day in houses 50x16 feet, and I rarely find a green-fly or other insect in the houses where it is used. I also think that it tends to keep roses free from mildew; at least I have not been troubled with the fungus since using above, and know of nothing else to which to ascribe its unusual absence.

AVG. S. S.

ROSE MAID, LAMHARD.—A few fine buds of this rose are sent us by Mr. Louis Knappner, Agricultural College, Mich., who says "why should we strive so hard for new varieties when we have so many good old ones?" The effort to improve existing sorts or to combine the valuable qualities of several separate varieties into one individual should not be discontinued, but the question might with propriety be asked, are we not ignoring old sorts which would prove equal to any of those more newly introduced were we to give them the same care and advantages? The *Nipheto*, now so largely grown under glass, was introduced in 1841, but for many years was considered of little value, and was so for garden purposes, finally, some one discovered that it was easily forced under glass and now it is a standard sort for that purpose. Are there not similar discoveries to be made?

ROSE SOIL.—Has any one used for roses a soil manipulated as that used by Mr. Chas. T. Starr for carnations, viz.: use the same soil each alternate year, or do roses exhaust the soil too quickly for this to be allowable? JOHN CURWEN, JR.

PANSIES.—Will some reader of the A. F. inform me as to the best sorts of pansies to sow for winter blooming and at what time to plant for early flowers?

W. B. W.

The Out-Flower Trade.

February Floral Fashions.

BY OUR NEW YORK CORRESPONDENT.

The increase in the varieties and the amount of foliage, and in all sorts of decorations, is a marked feature in fashionable floral work. Novelties in foliage are looked for rather than in flowers in choice designs and arrangements. Southern Jamaica clematis and jasmine, with very elegant saxifraga, arrive daily; myrtle and ivy is in lively request, while hardly and hot-house ferns are used in profusion.

Plaques and panels have gone out, and vine sprays are now in vogue for making trearices on wall spaces, and draping over mirrors, pictures and cabinets; vases are also garlanded with vines, especially when the potteries are tall and slender and of one color. These are the kind selected for the ornamentation of corners, hearths, and placing on pier brackets below mirrors.

A very elaborate foliage decoration was made in Delmonico's ball-room yesterday by Messrs. Siebrecht & Walley. The spacious salon was transformed into a garden more completely than it ever has been before. The entrance from the main corridor was through a picket gate which was the opening of the garden fence that extended each side. This fence was a charmingly picturesque feature. It was run all over with vines, and looked as if it might have stood for years in this position as a support for the graceful climbers that ornamented it. Inside the fenced-off garden were cinerarias, genestas, azaleas, primroses and tulips. A rich display was made of specimen foliage plants. Palms of many varieties were grouped around the room and beautified the window-sills and every convenient space. The novel feature of the arrangement was the ceiling of foliage. This was made of selected hemlock sprays on a wire frame which was suspended from the true ceiling just far enough for the electric lamp globes to pierce through the green. This ceiling of foliage was light in effect, and bestowed a fantastic effect upon the room. The side mirrors were traced all over with hemlock sprays to be in unison with the ceiling.

Daffodils, which are more fashionable than any other flower, are freely used in wall decorations. Ivies drooping over mirrors are held by clusters of long-stemmed daffodils which are found in bunches with grasses. A very beautiful embellishment was made by McConnell for a ball lately with myrtle and amaryllis. The vines were artistically adjusted so as to make a running drapery around the room, it being caught on picture corners or mirror frames, or door casings, with superb varieties of amaryllis. Tall vases of yellow and blue were trimmed with vines and held longidorums and amaryllis. A bank of myrtle and lilies was arranged before the mirror and on side cabinets.

The latest effect for wedding decorations is to place two fine high palms at the head of the room so that the leaves will intermingle and form a lower. Each side of these plants tall concave screens made of wire and covered with foliage will stand. Upon these screens elegant embossings with ferns, mosses, grasses, begonia leaves and southern swamp growth are made. At the top of each screen a large cluster of hybrid roses surmounts and finishes the piece. Violets, mignonette, snowdrops, Holland hyacinths and roses, of course, are the favorite flowers. Cherry blossoms were used by

Brown for the luncheon of a debutante this week. The arrangement was one of the choicest of the season. Loose clusters of the blossoms were placed on a flat bed of grasses in the center of the table which was covered with white satin. The favors were cut-glass hamper, filled with grasses and a few blossoms. These glass hampers are used as jewel cases when the flowers have faded. The most stylish design for dinner center pieces are flat ovals containing a fine collection of foliage, soft ferns and asparagus vine sprays working up to a low mound at one end, where a cluster of daffodils are placed, roses, mignonette or snow drops, in no mixture. Klunder decorated a dinner table yesterday exquisitely. There were three sprays made with saxifraga leaves, the stems of which were caught onto fine silver wire. These sprays were laid through the table irregularly. Primroses were introduced in clusters between the vines. The many shades of purple in Holland hyacinths affords fine opportunities in the shaded floral ornamentations still favorite. An exceedingly chaste table ornamentation was made on a pearl-colored satin cloth. Ferns and saxifraga leaves composed the center bed, which at one side held trusses of hyacinths which shaded from pale lavender to deep royal purple. Those who like a display of ribbon with flowers in dinner arrangement are using the French fish baskets which are stood among ferns and asparagus.

These baskets are still the most popular German favors and souvenirs. They are the most in request when trimmed with daffodil-colored ribbon. Usually a pot of growing ferns is placed in one side, and the other side is built up with daffodils and Marchal Neil roses. The saxifraga leaves combine elegantly with yellow roses. Violet balls are among the prettiest German favors, and have been introduced by Hanft Bros. The balls are eight inches in diameter and are made of Neapolitan and Marie Louise varieties, half and half. A loop of pale blue ribbon is fastened to the ball to be swung over the arm.

Corsage bouquets have dwindled in size down to a single rose and bud, or a bunch of violets without foliage. Hand bouquets are made of eight to eighteen roses with long stems. These stems are fastened together firmly at the ends and left to spread out loosely. Rose leaves are added to screen the fastening and to droop down, two or three buds being introduced. The choicest wedding bouquets are made of orange blossoms entirely, with buds and possibly some very small fruit. The flowers are obtained from the south, and are tied in loose clusters with white satin or gold-colored ribbon.

A beautiful gariture of pansies was made on a gown of royal purple velvet worn by a lady at a wedding. The front breadth of the skirt was spangled with large yellow and purple flowers. A hand bouquet of Marchal Neil roses and purple pansies was carried. The bride wore a dress of white tulle and white satin; the bridesmaids wore white vines and snow-drops heading the lace flounces and around the square neck of the corsage. Most of the bridesmaids at day weddings wear bonnets which are trimmed altogether with natural flowers. The white violet bonnets are dainty combinations of lace and violets, with full high clusters to form the fashionable lace trimming.

Caskets containing the dead are elaborately ornamented with flowers appropriate to the age of the departed. In London florum lilies are used in profusion. Foliage and violets are employed for old

people. Orchids are much esteemed for funerals; wreaths and crosses of these, or large clusters, are laid on the caskets. Some very lovely floral "coverlids" have been made lately for infants' caskets. These are composed of blue daisies, marguerites, fuchsias or lilies of the valley. An ordinary square is cut out of white cashmere and the flowers are sewed on so as to completely cover. The design is improved if turned back at the head of the casket, with different blossoms there applied.

Parisian Floral Styles.

Extravagance in flowers is one of the prominent weaknesses of fashionable Parisians of the present day, who do not now disdain to borrow hints from the Americans. This Christmas, flowers have been the favorite offering in expensive holders. The Christmas salons have been smothered in huge ribbon bows which could be used for a dress, and have held lilies of the valley and orchids; white lilacs and roses have been fastened on delicate fans, and rag-pickers' baskets filled with flowers have been concealed with rare brocade suitable for a chair cover, while handsome embroidered plush handbags held a valuable present, all these being substituted for the usual bag of sweets to hostesses. Crowds have collected in front of the florists' shops to view their displays.

All pots in drawing-rooms are now shielded by ornamental multicolored silk or folds of brocade or plush, artistically arranged, and little gilt wheelbarrows are still the favorite basket for violets, mimosa, pinks and mignonette. The newest floral fancy, however, is to ornament mirrors or windows with bouquets of real roses.—*Parisian Letter*.

NOTICE CHAS. F. EVANS' full page advertisement on page 263.

MRS. DASHAWAY: I am to be married to-morrow evening, and I want a floral bell to hang in the drawing room. Make it just like the two you sent me for as many previous weddings.

FLORIST: How would a chestnut-bell in tea-roses answer?—*Rambler*.

IN A back number of the FLORIST a correspondent states that a pure white or yellow sport of a geranium can not be propagated, etc. Of course, we all know that the white can not, but I will take exception as regards the yellow. I have grown a pure yellow-leaved geranium in sport for the last three years and it has proved to be a first-class grower. Its color is as bright as the Golden Beder coles, and it has never failed in any place yet tried.

R. E. S.

Cypripedium Insigne.

A private gentleman, the owner of a spacious garden and large greenhouses, and who is extremely fond of the lovelier orchids, as cattleyas, dendrobiums and phalenopsis, has had quite an aversion to cypripediums—"What is there to them? You cannot call them beautiful!" he would remark. But last December when he saw a mass of plants of Cypripedium insigne, in all about a yard square, with a hundred blooms open at one time, he exclaimed—"Well, now, that's handsome! I believe I'm getting to like the ugly things!"

And so it is with many other flowers, hardy or tender; one or two plants in a middling condition give us but a poor idea of them when seen in masses and in good condition.

W. F.

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Advertisements for March 1st issue must REACH US by noon, Feb. 23. Address,

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Roses per dozen, Perles, Niphotos, Soures, \$1.50; Dukes, Bennetts, \$3; Cooks, \$4; Mermetts, \$2.50 to \$3; Gowers, \$2.50; LaFrance, \$3.50; Jacques, \$5; Hybrids, \$12; Bon Silenes, \$4; American Beauty, 75 cents to \$1 each; carnations, 50 to 60 cents per dozen; tulips, \$1; hyacinths, narcissus, daffodils and valley, \$1.25; Dutch hyacinths and callas, \$2.50; long-florum lilies, \$3.50; mignonette, 25 to 75 cents; lilac per bush, \$1.50, and violets per 100, \$2 to \$2.50.

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Roses, Perles, Niphotos, Soures	8.00
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" Cooks, LaFrance	20.00
" Mermetts	15.00
" Ami, Beauty	40.00
" Bon Silenes	1.00
Carnations, long	2.00 to 3.00
" short	1.00
Jacodils, valley	5.00
Tulips, narcissus	5.00
Romans, mignonette	1.00
Violets	2.00
Smilax longiflorum	20.00
Callas	30.00
Adiantums	1.50

CHICAGO, Feb. 10.

Roses, Perles, Niphotos	8.00
" Mermetts	10.00
" La France	15.00
" Jacques	25.00
" Bon Silenes	1.00
" Satirons	1.00
" Bennetts, long stem	1.50
Carnations	2.00 to 3.00
Violets	2.50
Romans, L. valley narcissus	4.00 to 5.00
Callas	12.00
Smilax	5.00
Tulips	4.00 to 5.00
Camellias, colored	8.00
" white	10.00

BOSTON, Feb. 10.

Roses, Teas	8.00
" Perles, Niphotos	10.00 to 12.00
" Mermetts, LaFrance	15.00 to 20.00
" Nels	20.00 to 30.00
" Jacques	30.00
" Hybrids	30.00
Lily valley	5.00
Tulips	1.00
Freezia	3.00
Aceris	1.00
Adiantums	12.00
Callas	12.00
Tulips	2.00 to 3.00
Violets	1.00 to 1.50

PHILADELPHIA, Feb. 10.

Roses, Teas	8.00
" Perles, Niphotos	10.00
" Mermetts, Bennetts	15.00
" Nels	20.00
" Cooks, La France	25.00
Hyacinths, tulips, valley	1.50
Carnations	2.00
Smilax	20.00
Callas	10.00
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The monthly meeting of the Gardeners' and Florists' club on Feb. 9 was well attended. An address was made by the president of the club, indicating what should be its future policy and advocating the securing of a permanent club room. An interesting essay on heating by hot water under pressure was read by Denys Zingebel, of Needham, and the usual animated discussion followed. The next meeting will take place on the first Friday in March. The membership has now reached nearly two hundred.

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Lily of the Valley, strong forcing pipes, 50 per 1,000. 500 per 10,000.

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" white and light, large bulbs.	20.00	2.50
" yellow, yellow grounds, lrg. bulbs	25.00	3.00
Hyacinths Candide, large bulbs.	2.00	3.00
Pearl Tuberoses, large bulbs.	12.50	1.50
L. Auratum, large bulbs.	9.00

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Good Flowering Roots, \$3.00 per 100, \$5.00 per 1,000.

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Choice American Hybrids, \$2.00 per 100, \$5.00 per 1,000.

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Seeds, For the Florist, Market, Garden, and Farmer. Requisites, Such as Baskets, Immortelles, Grasses, Mosses, Bouquet Papers, Pampas, etc. Bulbs, For the greenhouse or garden.

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NOTICE.**Florists, Seedsmen & Nurserymen**

Should all have our catalogue. It contains goods that all need. If you have not received a copy of our last (December) issue send for one, with some evidence that you are engaged in the trade, as we never place this list into the hands of amateurs.

NO. 2 TUBEROSE BULBS,

3 UP TO 4 INCHES IN CIRCUMFERENCE

We Fully Believe 85 Per Cent, will Bloom.

Pearl or Tall Double \$8.00 per 1,000. Variegated

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PAMPAS - PLUMES

ADDRESS

J. W. UDE, Santa Barbara, Cal.,

-OR-

A. VIRGILI, P. O. Box 319, New York City.

Seeds of Our Own Growing.

ASTER Washington Extra Double White,

Washington Mixed, collinsii Mixed, Truffaut's

Mixed, PEONY Perfection Mixed, Victoria

Mixed, PANSY Solenifid Mixture, PHLOX

GRANDIFLORA Choice Mixed. Each per

Trade Pkt., 25c. MARIGOLD El Dorado, per

Trade Pkt., 15c.

T. C. AUSTIN & SONS, FLORISTS

Suffield, Conn.

Mention American Florist.

Fine Colored Lithograph Plates of

MOORE'S DIAMOND GRAPE,

For Catalogue use. For sale by

Send for Samples. J. F. LeCLAIRE, Brighton, N. Y.

FINEST FORCING BULBS**FOR LATE SUMMER AND FALL DELIVERY.**

SUCH AS: Roman Hyacinths and Narcissus, Paper Whites, Lilium Candidum, Longiflorum and Harissii, Freesia, Anemone Fulgens, forcing Ranunculus, Gladiolus Colvillii Alba, Spirea, Lily of the Valley, pips and clumps, etc.

ORDERS BOOKED NOW

ALSO FOR: Roses, Azaleas, Rhododendrons, Palms and other Plants. Small and large Order alike welcome; but our special terms will be mailed only to those sending evidence of being in the trade. As prices are somewhat determined by size of order, applicants will please state right off quantities desired. References required from unknown parties.

Address,

AUGUST RÖLKER & SONS,

44 Dey-st., or P. O. Box 899, - - - NEW YORK.

Flow and Return Pipes.

On page 104 Mr. May speaks of making some changes in the flow and return pipes which led to improved circulation. It seems to me that this way of speaking of the pipes is very misleading, as it implies that the flow and return pipes perform different functions, which they do not.

Suppose a house 400 feet long with a boiler at each end, the pipes from No. 1 boiler running along one side of the house and connecting with No. 2 boiler, and the pipes from No. 2 run along the other side into No. 1, making complete circulation through both boilers. In such a case there are two things which Mr. May probably would not do. He would not run the pipes from No. 1 boiler 200 feet up hill and then 200 feet down hill to No. 2. If he did he would have to explain what sudden reversal of natural laws compelled this change of grade, and why the change was made just half way, rather than at any other place. Again, if he started from No. 1 with four pipes, he would not, at the end of the first 200 feet, change to five; or if he started with five he would not change to four. If he did he would have to make the double explanations called for in the other case. It is evident that whatever number of pipes you start with, you must carry through the whole 400 feet. Now these two things which no florist would be likely to do in this case, are precisely what nearly every florist does in actual practice. For if you straighten out the pipes in a 200-foot house into a 400-foot length they will be as described, running up hill half way and down the rest, and changing in number at about the half-way point. I know of no reason for these changes.

While the grade of the pipes certainly influences the flow it does not control it, and, as Mr. May says, if the other conditions are right, the water is bound to keep moving whether the grade is up or down. It takes but very little to stop the circulation; a bit of pine shaving has done it in a large range of pipes. In the case mentioned by Mr. May, the running the water out of the pipes may have removed some obstruction, or in changing them some trifling inequalities may have been corrected, but it is not likely that the number of the pipes had anything to do with the matter.

When the up-hill system works well the down hill will work better, and that is all that is claimed for it. It is not a universal panacea for all the ills that pipes are heir to. Your correspondent, G. S. R., states a curious case. Can he heat the pipes of one house by shutting off the other entirely? LOTHROP WIGHT.

Colens, Rooted Cuttings

Vershaeffelt, Kirkpatrick, Glorie of Autumn.

Golden Bedder and other varieties.

\$1.50 Per 100. \$12.50 Per 1,000.

500 at 1,000 Rates.

ALEXANDER MEAD,

Greenwich, Conn.

A Double Heliotrope

The most valuable novelty for 1887, with many other novelties of sterling merit, are fully described in our trade list, just published. Send for it to day.

D. R. WOODS & CO. NEW BRIGHTON, Pa.

Echeveria Secunda Glauea

5 to 6 inches diameter, \$4 per 100; \$3 per 1,000. 1 1/2 to

3 inches diameter, \$2 per 100; \$15 per 1,000.

DAVID SCOTT,

408 MAIN ST., - BUFFALO, N. Y.

CHRYSANTHEMUMS.

Finest collection in the West. 100 named varieties.

Mostly new sorts, \$3.00 per 100.

Chrysanthemum catalogue ready Jan. 1, 1887. Send for it.

H. L. PHELPS, Florist,
Springfield, - Illinois.

A SILVER MEDAL.

and three First-Class Certificates were awarded our new

SEEDLING CHRYSANTHEMUMS

by the Massachusetts Horticultural Society Nov. 12, 1886. Send for descriptive circular to

EDWIN FELKES & SONS,

Newton Highlands, Mass.

A FEW GOOD SPECIALTIES.

Per 100
 Louis and bloom, 4 in. pots, \$12.00
 Chinese Primroses, finest English strain, 6 in. pots, 6.00
 Chinese Primroses, finest English strain, 6 in. pots, 6.00
 Carnations, Spanish plants and varieties, in 6 in. pots, 1.00
 Double, 4 in. 5 in. pots, 1.00
 Isomine, Calluna, indispensable to florists, 4 in. pots, 1.00
 Spotted Calla bulbs, 8 in. Calla, fine plants, 4 in. pots, 1.00
 Monthly Pelargoniums, strong plants, 2 1/2 in. pots, 1.00
 Dublin Camellia-dora, new dwarf white extra, whole roots, per doz, 5.00
 Jessamine, Grand Duke and Japan, Variegated, 2 1/2 in. pots, 1.00
 La France Rose, big plants, 4 in. pots, 1.00
 Perles and Marmets, 4 in. pots, a lot of the named sorts, 4 in. 5 in. pots, 1.00
 Geraniums—double and single, best marked sorts, unnamed, 4 in. pots, 1.00
 Florists intending to go to Europe will find it to their interest to correspond with me, as I sell tickets to and from Europe over three of the best Trans-Atlantic steamship companies. Foreign exchange and money orders issued to order post paid. Address in Europe, Address, JOHN G. HEINE, TERRE HAUTE, IND.

95,000 HINSDALE FLORETS

CUT DURING ONE MONTH.

We offer to the trade a fine lot of young plants or rooted cuttings of this desirable carnation. About Crispin King, Thos. E. White, Grace Wheeler and Charles Henderson. Write for particulars.

JOHN H. TAYLOR,

ROSEBROWER,
BAYSIDE, LONG ISLAND, N. Y.

CARNATION CUTTINGS.

Rooted cuttings of Grace Wheeler, Chester Prince, Canterbury, Seawan, E. Leonard, Peter Henderson, Snowdon, Lady Emma, Philadelphia and Scarlet Gem.

Price, \$2.00 per 100. \$15.00 per 1,000.

Send for price list of potted plants, ready March 1. A new work on "Carnation Culture," by L. L. Lamborn, will be sent free on all orders of \$20 or upward from this list, or on receipt of price \$1.50, will be sent postage prepaid to any address.

WM. SWAYNE,

CARNATION GROWER,
110 BOX 256, KENNETT SQUARE, PA.

SUBSCRIBE NOW FOR A COPY

—OF OUR—

NEW TRADE DIRECTORY

Price only \$1.00.

AMERICAN FLORIST CO.

NEW ALTERNANTHERA

SPECTABILIS VARIETATA

NANA. Ready March 1. Orders filled in rotation.

CLEMATIS JACKMANII ALBA

A full line of seeds. Trees, Plants, etc. described and priced in our Illustrated Catalogue, now ready and sent free on receipt of a cent's pay postage. Wholesale list of Trees and seeds free.

John R. & A. Murdoch,

708 SECOND ST. PITTSBURGH

Our New Carnations for 1887

Mollie Carl, Bessie, Thos. E. White, Grace Wheeler, Florence, Clifton, Paxton, etc.

Are the finest in every respect ever introduced here, for market purposes.

Send for descriptive list to

DEXY'S ZIRNGIEBEL,

Anna Wicks plants by the 100. NEEDHAM, MASS.

OUT! CARNATION CULTURE.

The only work in Europe or America on this plant. Table of contents, price, \$1.00 postpaid. Address

LORA L. LAMBORN,

Box, 592, - ALLIANCE, OHIO.

LYCOPodium

DRY FOR DYEING

Dyeing packs for 50. Being made by this process a very low

J. C. VAUGHAN,

P.O. BOX 101, - CHICAGO.

CARNATIONS.

Rooted Cuttings of the most desirable carnations now cultivated are ready for shipment.

We have a large and healthy stock of snowdon Edwards, Seawan and Century at 100 cts. per 100, with many other varieties and prices particularly described in our price list, which is furnished FREE TO ALL APPLICANTS.

AFTER APRIL 1,

we will furnish, if desired, at one-quarter additional price PER 100, transplanted plants of all the varieties named in our list. These will go well during the summer at considerable less cost for expressage.

ROOTED CUTTINGS

from the propagating bed if ordered early will answer every purpose, being most conveniently and cheaply handled.

CORRESPONDENCE SOLICITED

with parties desiring more than a thousand of each variety quoted at \$15.00, but we do not club varieties together in making thousands or hundreds.

THOS. F. SEAL,

Unionville, Chester Co., Pa.

ANNOUNCEMENT

New ROSES of 1887.

PURITAN! MRS. JOHN LAING! METEOR!

The Puritan.

A pure white hybrid tea seedling.

No more valuable rose has ever been offered to the public.

A rose similar to its parent, Mabel Morrisson, but blooming continuously and as profusely as Catharine Mermet.

Clean foliage, with no disposition to mildew.

Delightfully fragrant, having strongly the odor of the magnolia.

Flowers can be cut with stems averaging from 15 to 18 inches, and have a wreath of foliage directly encircling the bud.

A certificate of merit was awarded this rose by Mass. Horticultural Society, Nov., 1886; also a silver medal by Penna. Horticultural Society, Nov. 1886.

Mrs. John Laing.

This rose is *the* hybrid rose for early forcing; it can readily be brought in for Christmas.

Its color is a beautiful soft pink; it has a most delicious fragrance and is finely shaped.

It is a very strong grower, profuse bloomer and is free from mildew.

A grand garden rose. Not over strong plants have produced six to eight flowers each in early forcing this winter.

It has been certificated wherever shown, and was awarded the gold medal of the National Rose Society of England, July 7, 1885.

The *Journal of Horticulture* in describing rose show at Crystal Palace, July 4, 1885, where 125,000 blooms were exhibited, says:—

"*The rose of the show* was Mr. Bennett's new triumph, Mrs. John Laing."

The Meteor.

This is the darkest red hybrid tea rose in existence.

Its color is a deep velvety crimson, without any purple tinge.

It is a constant and good bloomer, a strong grower and is free from mildew.

We recommend this rose especially for spring, summer and fall blooming, when it is too hot for Bennett buds to be useful.

It has been exhibited but once, when it received the very highest recommendation from the judges.

Blooms of this rose after having been kept one week, when compared with freshly cut blooms have shown no change in color.

These new roses are no untried novelties; we have tested them for one year in our greenhouses, and we feel fully justified in asserting that they will prove exceptionally desirable and profitable to growers of cut flowers.

Plants of the above will be ready for delivery May, 1887.

Circulars with full description and prices will be sent upon application.

CHAS. F. EVANS,

STATION "F," PHILADELPHIA.

N. Y. York.

Mr. John Henderson, 100 Washington St., New York, is the agent in New York.

A great exhibition will be given by the New York Horticultural Society the 15th and 16th of April at the Central Hall of the city, and in the City Hall, of Jersey City, N. J. We have also purple Roman Potatoes.

There has been a glut of July of the yellow for a month past. It sells freely, for \$1.50 a hundred wholesale.

St. John Thorpe is one more in harness. He has been spending a few days in New York attending to business matters.

The funeral work is largely on the increase in this locality. Florists have never had such large and costly orders in this season.

The monthly meetings of the New York Horticultural Society, the first Tuesdays in March and April, will be held in Cooper Union.

So great is the rage for foliage decorations that large amounts of pretty southern greenery is being sent in daily for the use of florists.

A new ivy has been discovered in Westchester County by Mr. J. A. Wolf, that is pronounced a distinct species by Hall, of London, and leading New York horticulturists.

The flowers for the funeral of Raymond Belmont were of the most elegant varieties, but there were not any novel designs. Wreaths are decidedly the most favorite funeral emblem.

Many of the "amateur florists," who sell their flowers on the quiet, are millionaires, yet they are not above bringing in small-sized packages of stuff daily for their country greenhouses, which they leave at the shops of their patrons.

At a business meeting of the New York Horticultural Society, Feb. 1, officers for the coming year were elected. The meeting was an amiable one, and all members seem inclined towards progression. Nine new members were elected, and fifty more pledged by prominent horticulturists.

Preparations for the first grand orchid exhibition to be given by Siebrecht & Weller, are progressing, and point to an institution and very elegant display. Mr. Siebrecht's extensive collection of hellebores and platycodons are to be used in decorating the winter garden of the Eden Musee, and some imposing palms and tree ferns are to be shown in groups.

CHOICE GRAPE VINES.

A special and very handsome well-timed plants of the following varieties.

Norfolk, Blackthorn, Jefferson, Moore, Early Wines, Concord, Catawba, Pockwood, and Concord, Empire State, Lady Washington.

Simplex, 1 and each 10 varieties, free by mail for \$1.00.

Prices in quantity given on application.

F. A. BALLER, BLOOMINGTON, Ill.

TO THE TRADE, SUPERSTOCK, Ill.
 American Rose, 1 year, strong, \$1.00 to \$1.50
 American Rose, 2 year, strong, \$1.50 to \$2.00
 American Rose, 3 year, strong, \$2.00 to \$2.50
 American Rose, 4 year, strong, \$2.50 to \$3.00
 American Rose, 5 year, strong, \$3.00 to \$3.50
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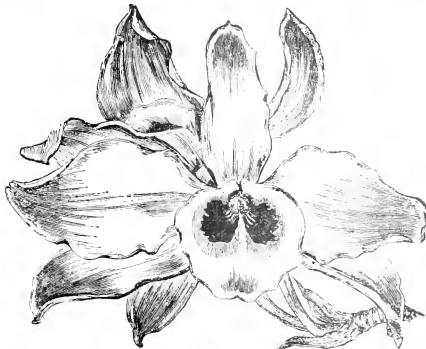
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Mignonette in Pots.

The immense quantity of mignonette grown annually for market purposes proves that it is one of the most popular flowering plants; although there is a certain demand for it throughout the year, it is during the early spring and summer months that it is most wanted, being then used for purposes of every description.

The best position for growing pot-mignonette is in pits or frames, and as one great point is to keep it as dwarf as possible, the closer to the glass it can be kept the better; it is also necessary that the glass should be kept clean. In preparing a range of pits for mignonette it is a good plan to have them in three sections, the first to be filled up, so that when the seed-pots are plunged they are within three or four inches of the glass; by the time the plants require more room they may be transferred to the second section, which should be a little deeper; here they may remain until they require tying, when they should be placed in the third section, which should be deep enough for the plants to remain until they come into flower and are fit for market. A regular succession may be kept up by filling the first section of the pit in two separate sowings, the second to be made about the time the first is beginning to show the second leaves; by following on with successive sowings each section may be kept filled up, and a regular supply obtained.

In preparing the seed-pots they should be well drained, and it is a good plan to mix a little sand with the drainage. The compost for filling the pots may consist of good maiden loam, with a little well-rotted manure added, or, what is often used by market growers, any old potting soil, with a little manure added; provided the soil be fairly rich and not too heavy, anything that is at hand may be used; care should be taken, however, that it is as free from worms as possible. In filling the pots the soil should be pressed as firmly as possible, and the seed should be well covered with soil.

For early spring work the seed should be sown in the autumn—say, about the beginning of September—and throughout the winter it should only have sufficient warmth to keep the frost off. The first spring sowing may be made about the middle of February. That sown in the autumn as well as that sown early in the year requires great care to keep it healthy until the days get longer and the weather brighter; the main thing is to avoid its getting drawn and weak.

As soon as the seedlings are large enough to handle they should be thinned out, leaving from six to nine plants in a pot. Six plants will be quite enough to fill a 48-sized pot, but it is best not to thin too closely at first, in case of a few plants damping off.

Watering is one of the most important matters connected with the culture of mignonette. Great care must be taken not to get the pots too wet, especially during the earlier stages; as the plants get more advanced and the pots full of roots it is necessary to guard against the other extreme; either excess is very damaging, if not fatal, at any time. As soon as the roots get round the pot, liquid manure may be used, beginning by using it weak, and using it more freely as the plants advance.

Ventilation must always be given freely, and no artificial heat used except to keep out frost.—A HUSBAND, in *Gardener's Chronicle*.

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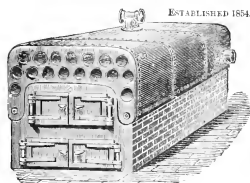
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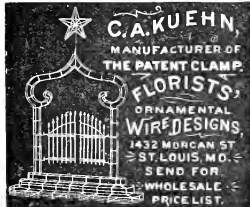
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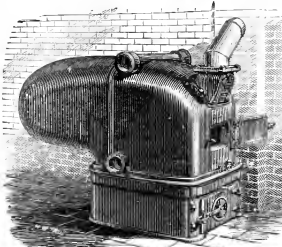
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Vol. II.

CHICAGO AND NEW YORK, MARCH 1, 1887.

No. 38.

THE AMERICAN FLORIST

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SOCIETY OF AMERICAN FLORISTS.—Robert
Craig, Philadelphia, Pres.; J. C. Vaughan, V.
Pres.; M. A. Hunt, Treas.; Edwin Lonsdale,
Chestnut Hill, Philadelphia, Secy. The third
annual meeting at Chicago, August 16, 17 and
18, 1887.

A WEEKLY FLORIST.—So many subscribers request that the FLORIST be made a weekly that to get a full expression of opinion on the subject we request all who are willing to pay \$2.00 a year for the same to send us their names on a postal card. As soon as the number of names received will justify its publication we will make the change. Don't be afraid to speak up!

Substitution.

The action of the executive committee of the S. A. F. is causing no little talk among the craft, and especially among those doing a mailing business. The question is asked, does the evil of substituting exist to the extent inferred by the action of the executive committee, or are these gentlemen taking upon themselves unnecessary trouble in endeavoring to bring about a reform in this the most disreputable of all practices connected with the profession? Multitudes of amateur customers protest in most emphatic terms against this vicious and unwholy way of doing business; that the evil exists we have abundant evidence.

The writer of this has a letter from one of the most distinguished French rosarians in which he asks the question, "Why do American plantmen consent to send out varieties of roses known to be untrue to label?" citing in support the fact of a Pennsylvania gentleman sending to him every year for varieties of roses that appear on every rose-growers' catalogue in America, telling the Frenchman "I cannot depend on the roses gotten from my countrymen." Is not this a sad commentary on the profession in America? Another writer in a prominent journal says very few of the hybrid perpetual roses disseminated in the United States are true to name. Instances after instances could be given where amateurs have been victimized. A lady in a neighboring town sent the required price to a

distinguished (?) florist for twenty-four roses—all different varieties—and on their coming into bloom she had those three time-honored servants of the rose grower—Bon Silene, Sprunt and Safrano—but she got twenty-four labels, all different "purchasers' choice," and doubt the gentleman filling the order thought she got all she was entitled to, but what a reproach on honorable dealing? Two prominent members of the executive committee made the statement that certain parties had the question of substitution down to a system, for on the walls of the packing rooms were hung—for guidance—a list of varieties to be used in substituting all good sorts; but if other varieties were sent, why not label them true? They also said that the above could be verified by workmen in their employ. Instances are numerous where the trade has been victimized, and it has been done in a very adroit manner; but that day is about gone by, for there is too much intelligence abroad to suffer this to go on unnoticed.

Enough mistakes occur in handling and shipping plants without adopting a systematic method of swindling. That this practice should be stamped out does not admit of question by any honorable man in the business. The action taken by the executive committee of the society deserves the hearty and earnest support of every man in the craft who has the good of our profession at heart; the movement inaugurated augurs well for the craft. The methods mentioned above operate injuriously to those desiring to do a straightforward business. Take, for instance, an amateur who makes his first investment in plants; he gets ten or twelve varieties of roses; he plants, tends, flowers them, and makes his notes; next season rolls around; he finds many of his roses winter-killed, and he concludes this year to send his order to B; well, B sends the list true to name, but imagine the purchaser's disappointment to find them entirely different from his varieties of the previous year. Does the result of his dealing with B give confidence, when in fact he has received just what he asked for? I give this to show how it operates to the disadvantage of those doing a square business. We must recollect also that there are thousands of new customers every year who become plant purchasers.

That the profession on the whole are honorable men cannot be doubted; but in the scramble for wealth there has fallen on the profession a certain laxity of thought and a seeming condonance of the evil mentioned. We need a thorough toning up and a higher and better appreciation of our calling than to stand by and wink at this blot upon our good name as a craft.

Another pernicious practice is seemingly gaining ground; that is the changing of names of not only new plants but time-honored varieties of plants that have

been known for a generation—instances are numerous where northern plantmen have renamed plants for heroes of the south in order to catch trade in that quarter; but how can we check this? By exposing and upholding the matter, until a very shame they cease doing it. Let the society at its next annual meeting give Mr. Robert Halliday the time necessary and he will show the ugly features of this last-mentioned disease, and he has a remedy as well. Let the executive committee faithfully carry out its programme; let the blow strike where it will, and the voice of the Society of American Florists will say amen.

ROSE GROWER.

Education and Competition.

BY J. N. MAY.

The very excellent article under above heading by A. E. W. in last number is very timely, and the more clearly the point is demonstrated, the better it will be for all who are as yet hampered with the idea that they will lose by giving to their brethren the benefit of their thought and experience. The wisest of us are but simple students; no one man can compass all the knowledge to be obtained in even the one department of horticulture, and frequently we may obtain valuable points from those whose experience has been very limited, but have happened to strike a line untouched by us.

My first employer was a thoroughly practical gardener of fifty years' experience, but his frequent remark to us youngsters was "I am only an apprentice yet." None of us are broad or too wise to learn and should we expect to profit by the experience of others and give nothing in return? Our business is progressive; new issues present themselves every day, and it is only by comparing practices, and an interchange of ideas that we can successfully cope with them. The benefit is for all; not one alone.

In response to a frequent question by beginners as to how long it will take to become a practical florist, my response is invariably, "all your life." Many are induced to embark in the florists' business thinking that it is very easy work with large profits. The many who have tried it for a few years and given it up, are witnesses to the contrary. I will venture the assertion that the proportion of those who succeed is not more than 5 per cent. Success is attained only by hard work with continued application and by the use of brains in directing that work; it is anything but an easy life. It will monopolize all your time from Monday morning till Sunday night, for the slightest neglect at any time may destroy the results of a season's labor. Those who can not give this undivided attention and constant application to plant growing I would advise to stay out of the business. Those to whom every detail is full of in-

terest, who delight in their work and who possess average business ability will meet with varying degrees of financial success. It is a mistake to suppose that large fortunes can be easily made in this business, for it is a pretty well-established fact that out of 10,000 florists in this country, not more than ten have accumulated a sum of \$100,000 each, from this business alone, though undoubtedly a very large proportion of the others have devoted all their energy and continued hard work to their business. This is certainly a very poor showing considering the care, worry and chances of total failure incident to the business. All our calculations must be made months, and frequently years ahead; and should fickle fashion change in the interval, much of our work is lost; many florists learn this to their cost.

In conclusion I would advise all young beginners who really wish to make a success in this business, to make a special study of nature and follow it as near as possible, first, last and all the time, for to become a good cultivator under artificial conditions is the only safe rule to follow—you may read everything published on the matter or that ever has been or ever will be, but nature will be the best teacher. No one can ever give minute instructions to suit all cases, and each and every individual grower must work out the small details suitable to his own particular case.

Summit, N. J.

Philadelphia.

Trade has been very brisk the past month, and roses somewhat scarce, especially the past ten days or two weeks, owing to the continued dull and frequently rainy weather. Prices rule the same, generally, as they settled to after New Year's day.

Tulips have been plentiful, W. K. Harris furnishing the bulk of what are used. Tulips are the most showy flowers in use at this time, and are general favorites with all flower buyers. Prosepire is considered the best tulip that is used for winter forcing. It is certainly the largest, in color it is dark pink. Kaiser Kroom is one of the most brilliant colored varieties, though I have heard complaints about its keeping qualities. It has red petals edged with yellow. Tournesol is similar as to coloring to the last named, but it is double and does not possess that elegance in shape as do the single varieties. Duchesse de Parma is also a showy sort, and its shades of coloring are difficult to describe. It may briefly be said to be deep bruise crimson, shading to the edges with rich orange. Yellow Prince is used almost altogether as a yellow and scarlet Duc Von Thol as a red.

Mr. C. D. Ball is awarded the palm for filly of the valley, which is plentiful now, though there has been no gnat.

C. H. Grigg & Co. and Pennock Bros., receive frequent consignments of orchids from New York orchid growers. Who will be the first in Philadelphia to make a specialty of orchids? It would pay.

The florists club is still doing good. At the last meeting Mr. W. W. Fencourt read a paper setting forth the advisability of establishing a wholesale market in this city for flowers and plants. The arguments which were produced in the essay and in the discussion which followed convinced most of those, who, when they came to the meeting were in different in the matter, that there was something in it, and a committee was

appointed to look further into the practicality of the plan and to report at the next meeting. It is to be regretted that the debate on the chrysanthemum was not published in the *Florist*, but there has been so much chrysanthemum matter in its pages that the committee on publication refrained from sending it. A committee was also appointed to try to secure permanent quarters for the club, and to have, in connection with it, an exchange. This would be a great feature, and one which every live florist, in or near this city, could not afford to ignore. E. L.

Treatment of the Bennett for Profit.

BY CHAS. J. EVANS.

Take off cuttings about this time, selecting the most thrifty wood in the blind of your plants. Make liberal cuttings, two eyes—or better still—three; they should be ready to pot in from three to four weeks.

This rose being very hard to start if it is first potted, I would suggest that the small plants be plunged in sand, or some other suitable material, on a bench where they will have plenty of bottom heat. They should start off immediately and be kept in good growing condition by proper watering and re-potting when necessary, until they are planted out.

About June 15 pick out the strongest plants to the number required and plant them in your bench or bed, but be careful that your soil is of a very light character, as this rose will not do nearly so well in a stiff clay soil. Keep picking off buds as they appear, until about the middle of September, by which time you should have fine, strong plants, which will produce more fine saleable buds to the square foot than any other rose grown at the present time.

Should you wish to force some the second year *do not* harden them off by keeping them dry, but rather keep growing continuously. Should you dry them in August or September and then start them up, they will throw an immense crop of flowers, but on very short stems; when this crop is over the season is late, the sun has lost much of its power, and your plants will remain apparently dormant at the very time the flowers would be most remunerative, though the plants will commence active growth again as the season advances.

If you are short of good, strong wood, it is advisable to propagate by grafting; by this method one good plump eye will count as much as three in a cutting. Grafted plants and those on their own roots will make about the same growth and will be equally satisfactory.

Feb. 15, 1887.

Boston.

Business good. Fine roses scarce and sell quickly at good prices.

Bulbous flowers, such as lily of the valley, narcissi, tulips, etc., abundant.

H. A. Siebrecht, of New York, has been in town seeking rare specimens for his great orchid show.

The "heating" question, which was discussed at the last meeting of the Florists' club, proved so interesting that it has been decided to continue the same subject at the next meeting, March 4.

Mr. Ames' reception, at his residence on Commonwealth avenue last week, was the crowning event of the party season. The halls and rooms were magnificently decorated by Mr. Robinson, the gardener. The flowers used were principally orchids, and the display of rare varieties in bloom was such as is seldom seen in this country.

Floral Decorations at the Reception of the Chicago Florist Club.

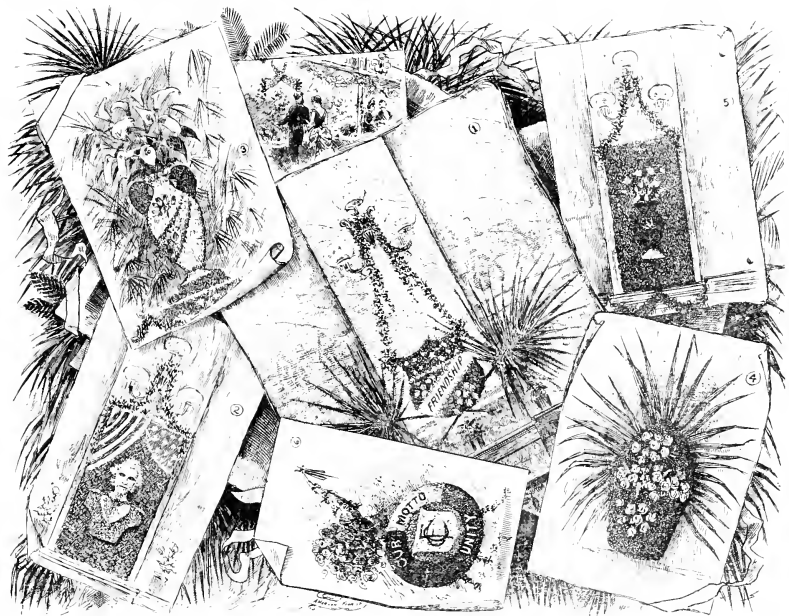
The reception and ball of the Chicago Florist club, Feb. 17, was a decided success, accomplishing all the objects for which it was designed. The floral decorations proved a great attraction to the flower-loving public, as well as to the trade, and in spite of a pouring rain the large hall was uncomfortably well filled.

The arch of the entrance was gracefully curvated with smilax, the ends at the top being finished with a richly-made floral horse-shoe; below this hung a large hollow ball of green, dotted with flowers. The ball was filled with loose flowers, and in addition held captive six live white doves. About one-third of the lower portion of the ball was separable and arranged to drop and turn in response to a mechanism placed in the outer hallway.

The mechanical action of the ball will be explained further on. Each side of the entrance was guarded by a large plant of *Angaria Japonica*, raised on a pedestal, the latter encased in a thick screen of hanging smilax. To the left of the entrance was the first wall design—a panel two by four feet in size, resembling a Turkish rug—the patterns worked out in all the shades of tulips to be obtained at this season, the whole bordered by white camellias and hyacinths. It was very showy and attractive though a great deal of color was used. Next was a large shield of white carnations with a line of yellow daisies, bordered on each side with lines of purple Dutch hyacinth bells, diagonally across its face. Above these lines the white surface was dotted with bells of light blue hyacinths, while below a loose bunch of Perles, tied with ribbon, reposed on a bed of pink carnations. Large palm leaves on each side added to the effect. Just beyond was another large panel (No. 5) of ivy leaves, on whose polished surface rested in bas-relief an urn, the body of red and base of white carnations, filled with roses, tulips and candidum lilies, and draped with asparagus.

The stage was thickly covered with large palms and other tropical plants, completely hiding the musicians. In the center stood a large and very artistically made Roman urn (No. 3), which stood boldly out from the background of dark green foliage. The body of the urn was with white carnations with arms of red; diagonally across its face was a band of white and tinted tulips, edged with white lilies on one side and hyacinths on the other, above the band was a simple knot of white tulips. The upper base was filled with tinted azaleas, the lower being of polished ivy leaves, with a knot of red hybrids on one corner; from the top emerged a profusion of calla lilies. To the right of this central piece was the club's monogram—four feet in height, of red, white and blue, immortelles. And to the left, a large ship of roses and mixed flowers with hull of ivy leaves sailing on a sea of tulips. Above, and finishing the decorations of the stage, was an eagle measuring four feet from tip to tip of wings, suspended as though hovering over the tropical forest below. It was richly made of carnations, camellias, white roses, etc., with fringed tail feathers and lilies of the valley.

To the left of the stage was another panel to correspond with the one at the right. It was of polished ivy leaves with a wide band of tulips diagonally across its surface. A very pleasing effect was obtained by placing the tulips in the upper half of the band pointing one way and those in the



RECEPTION AT THE FLORIST. (See page 1887.)

lower half the other. Above was fastened a knot of Niphetos and below another one of Jaspeus. Next was a wall pocket with front of ivy leaves with a band of colored tulips across its front; this was filled with white and colored roses against a background of asparagus. All the window seats were banked with flowers of various kinds, principally roses and tulips. One panel (No. 2) bore a portrait of George Washington, the face in immortelles, with hair of cape flowers, the coat of blue, and lapels and epaulettes of yellow immortelles. A portion of a flag thrown over one corner was of white and red immortelles, while the opposite one bore stars of white on a ground of blue of the same flowers. A very handsome design (No. 6) was a large plaque on an easel. The outer frame was in solid color, one side white carnations and the other purple hyacinths; on this was lettered "Our Motto," and below "Unity." A field of white carnations in the center bore the club's monogram in red, blue and yellow immortelles; the whole was surmounted by a cornucopia, loosely filled with Mermets roses. Another shield (No. 1) was of ivy leaves and bore the inscription, "Friendship," in violets on a bar of white carnations; a knot of Mermets above and Perles below finished the piece. Large palm leaves placed at either side helped to set off the design. A panel near the balcony was of polished ivy leaves with a simple diamond of red

carnations in the center and a small knot of tulips on the upper left hand corner and a similar one of daffodils on the lower right hand. It was richly handsome. A wall pocket (No. 4) faced with ivy leaves, on which was tied a bunch of La France was very effective. It was filled with red roses and hyacinths with a bunch of Perles placed on the back at top. A large palm leaf placed back of it, leaving the long points to project from all sides, added considerably to its beauty. Numerous balls of mixed flowers, were suspended from the side chandeliers, and crossed cornucopias, one of red and the other of white carnations hung from the center of the balcony; below this was a flower stand of corsage bunches which were presented to ladies who came unprovided. Near this was shown a basket of Puritan roses sent by Mr. C. F. Evans of Philadelphia, to Mr. Reissig, for display at the ball. The roses were the subject of many favorable comments. The pillars under the balcony were twined with wreathing studded with blossoms, while draped from one to the other was the graceful Asparagus tenuissimus. To the right of the entrance hung another wall-pocket, across the front of which was traced a bar of lilies of the valley. It was filled with roses, tulips and callas with back of sulcas. The name of the club was lettered in leopodium and immortelles the entire width of the balcony, and a large amount of wreathing was util-

ized in places where floral work would not show to advantage.

At the termination of the grand march the mechanical ball before mentioned opened, scattering the flowers and liberating the doves which flew across the hall in various directions. At the same instant the orchestra struck up a waltz, and the floor was at once covered with dancers, emphasizing the fact that the "ball had opened." Fully 700 people were in attendance and the affair was a success financially as well as socially. The daily press were very liberal in their praise of the floral decorations, and it is anticipated that it will result in a strong impetus to the trade here.

The decorations were made up by the members of the club in a body, each member contributing flowers, material or labor, and the value of perfect organization in an undertaking of this kind was well demonstrated. The club has leased a very pleasant club room at 180 Walsh avenue, and will hold their next meeting in the new quarters. President Anthony has of late been quite seriously ill, but is now improving.

RECENTLY REGISTERED AT THE OFFICE OF THE FLORIST.—S. Kehlmann, Jr., of the Ellard Floral Co., St. Louis; J. D. Cammody, Evansville, Ind.; C. L. Whinnery, Muskegon, Mich.; Mrs. Wm. McCher, Rockford, Ill.

Notes on Some of this Year's Novelties.

BY WILLIAM L. ALONSO.

ASTERS.—Comet leads. As the Japanese section of chrysanthemum is to the Chinese section, so is the Comet aster to the perfection peonia-flowered aster. The Washington Needle I have grown for two years; they are very fine, particularly the crimson.

ARISTOLOCHIA ELEGANS.—A warm greenhouse vine. Native of Brazil, beautiful, desirable and free-blooming. Flowers large, shell-like, netted and mottled with chocolate on a whitish ground. Awarded a first-class certificate, Aug. 11, '85, by the R. H. S., England. Flowered with Dr. Richardson, New Orleans, and at the botanic garden, Washington, last year. An amateur's plant.

BORONIA MEGASTIGMA.—Not a new plant at all, but I do not remember having before now seen seeds of it offered. A little shrubby plant from Australia. Flowers somewhat small, old gold and chocolate, most powerfully and deliciously fragrant, and borne in the greatest profusion. A cool greenhouse plant.

CHIVASANTHEMUM LEUCANTHEMUM VAR. MAXIMUM.—Is an extra large-blooming variety of the vile white weed of our hay fields. Offered by Sutton. The golden ox-eye daisy, C. segetum, and improved forms of it have been offered for some years. I have grown it, but don't recommend it.

CANDYTUFF.—Burr's Snow Queen. The varieties that gave me most satisfaction last year were New Hybrid Dwarf, white and rose, Gibraltariana, hybrid, raised from seeds or cuttings in summer or fall, wintered in a cold frame and bloomed in early spring, is very satisfactory. Color, pale purple.

CLEMATIS TIBETANA, offered by Thurburn. This is a hardy herbaceous species; blooms in mid-summer, blue, small-flowered, pretty, but not at all showy. A great beauty. I have grown it for nine years. They also offer C. paniculata, a Japanese vine with small, white flowers. Clematis seed often takes six or twelve months to germinate.

DRYMOND PHLOX, DOUBLE WHITE.—Is said to be full double. The double red we had last year was only semi-double.

FREESIA REFRACTA ALBA.—One of the loveliest and sweetest of winter-blooming plants and much appreciated and used in florists' work. Seeds germinate readily, and the second year give good blooming plants.

GALTONIA PRINCEPS.—In the way of, but not quite so good for our use, as Hyacinthus candicans. Grows freely from seed. Rare.

GLOXINIA SNOWFLAKE.—A pure white gloxinia offered by Sutton.

HEUCHERA SANGUINEA.—A hardy herbaceous perennial from the mountains of northern Mexico. An amateur's plant.

IMPATIENS HAWKERI.—A magnificent species from the South Sea Islands. Flowers large, brilliant crimson, with white eye. Certified by the R. H. S., of England, July 13, '86. Offered by Young & Elliott.

LOBELIA CAVANILLESII.—A resurrected plant. Native of Mexico. Not like our bedding Lobelia, as L. speciosa, but in the way of Lobelia laxiflora. Grows two feet high and is of erect habit. Flowers orange scarlet with yellow tips and throat. An amateur's plant.

MISA LORATA.—A very luxuriant vine from Mexico and nearly related to the cypress vine so common in our gardens in summer. The flowers are orange, changing with age to yellow, and borne

in scorpioid racemes. A summer-garden vine.

MYOSOTIS ALPESTRIS VICTORIA.—A variety of stout bushy habit, bears "umbels" of large, bright blue flowers with the characteristic central double blooms.

PANSIES.—Too numerous to mention. **PETUNIAS**.—Most dealers have, particular strains or selections of their own. Last year from Petunia grandiflora fimbriata fl. pl. I had some splendid full double flowers.

POPPIES.—The most remarkable among these is the Peacock poppy (Papaver pavoninum) from Turkestan and Afghanistan. It is single and has vivid scarlet flowers with a glossy black ring near the center. The Japanese form of the Mar-selles poppy is a new departure in double flowers. The blooms are very double and the petals are white and deeply fringed in scarlet. Poppies in large masses are gorgeous garden plants. I grow them in quantity, beginning with the glowing oriental species in May and June and ending with the spring-sown annuals in July.

PICRIDITH TINGITANUM.—An herbaceous plant, best treated as an annual, from Morocco. Flowers yellow, stained in the center with red. An amateur's plant.

PRIMULA.—Chinese primroses become better every year. Chelsea Blues have given me excellent satisfaction. Color, deep lavender. The late Primula conference in England has given an immense impetus to the cultivation of the multitude of lovely perennial species. P. japonica, P. cortusoides, P. Sieboldii, P. rosea, P. denticulata, P. capitata, and some others I have grown in frames for several years. P. obconica, of more recent introduction, is ever-blooming. But these are more for amateurs than for florists. This season P. imperialis from Java and northern India and P. reticulata from the Himalayas are also offered. And from Guelph, Ontario, a friend has recently sent me that little American gem, P. Missassinica.

RHEUM NOBLE.—A most distinct-appearing plant, three feet high, of pyramidal or conical habit, and indigenous to the high mountains of Sikkim. Young & Elliott.

SENECIO ELEGANS POMPOINUS.—Dwarf forms of the common double-flowered Jacobaea. Pretty, little summer-blooming annuals for the out-door garden.

STOCKS.—Princess Alice, a two-week variety which produces "its snow-white blooms in uninterrupted succession from May till November" takes the lead. I grew snowflake, the new forcing 10-week stock of last year, but failed to discover any other remarkable in it.

SUNFLOWERS.—New Miniature. How glad I am that we are renouncing the great big gawky things that so charmed Oscar Wilde and inclining to the brighter and prettier forms, of which Helianthus cucumerifolius, of Texas, is our best representative.

ZINNIA.—The biggest bloom and the biggest name comes from Europe, Zinnia elegans robusta grandiflora plenissima. Peter Henderson gives us zebra-striped varieties.

NEW PRIMULAS.—At the meeting of the Royal Horticultural society, Jan. 11, Messrs. Sutton & Sons received first-class certificates for six primulas. P. sinensis filicifolia double blue, P. Rosey Queen, P. double scarlet, P. double blue, P. double rose, and P. Gypsy Queen, the last named being a single white. The societies' silver gilt medal was also awarded

them for this new race of primulas. Over 400 plants were exhibited and the London *Gardeners* states that it was, perhaps the finest, largest and most varied collection of new double and single Chinese primulas ever shown in London.

Freesia Refracta Alba, After Blooming.

In reply to F., who asks for information, I would say we find they require very little care after blooming. Our freesias are very fine, and we can see no difference between those forced last season and our new imported bulbs, either in quality or freedom of bloom. We force them in boxes and this method enables us to keep up a continual supply of bloom. After blooming do not put them under a bench, but place in a cool house, giving light for a time, and gradually diminish the supply of water. Under such conditions, the bulbs will go to rest at their own time. When the bulbs are well matured, place the boxes in a dry, cool place, and do not disturb them until time to force again; for most bulbs are weakened by being kept too long out of the soil.

Without a doubt the freesia is going to be most extensively cultivated. In fine floral work it is charming and quite distinct from any other flower. The bulbs rapidly increase, therefore the price of the same must certainly decrease. I consider that as a pot plant for market it will be valuable, the fragrance being so well liked; about five bulbs in a 3-inch pot make a nice show. If pans about twelve inches in diameter are used by the private gardener, planting the bulbs about two inches apart, they will make capital specimens. I predict that in a few years the freesia will be almost as extensively grown as kamias and narcissus are now. As regards Romans, narcissus and tulips after forcing, we have found that late forced tulips where very little foliage was cut—giving the bulb a good chance to mature—produced very good flowers when used for out door planting; the same can be said of Romans. Narcissus we have found not worth handling.

College Hill, O. GEO. CORBETT.

Passiflora Constance Elliot.

In reply to "Western" I have found this *passiflora* quite as free a bloomer as any other variety I am acquainted with. A small plant—a last-spring-struck cutting—which I placed in a bed in an intermediate house produced a few blooms in June, and it has been in full bloom for the last two weeks, giving an average of ten blossoms a day, and I don't think it has made a fair beginning yet. The flowers would be valuable if a little more solid in texture. Its fine ivory white color is somewhat spoiled by the green calyx showing through the petals when held up to the light. It is however quite useful in floral work. ARG. S. S.

ECCHARIS MASTERSII. Last spring I imported bulbs of E. Mastersii, E. Mastersii and E. canalis. They were planted in one bed, and E. Mastersii proved quite distinct and much more valuable than the others. Every bulb sent forth a truss of from six to ten handsome and very fragrant pure white flowers, measuring two and one-half to three inches in diameter. This variety received a first-class certificate from the Royal Hort. society, of England, and I believe, from my experience with it, that it is the coming echinus for cut-flower growers.

E. HERRARD.
[E. Mastersii was illustrated in No. 11 of this paper.—ED.]



CATASETUM BUNGEROTHII. FLOWERS WERE WHITE WITH OFFICE CENTRE.

Catasetum Bungeorothii.

The handsome illustration of this orchid was reproduced from the English *Gardener's Chronicle*, which states that "this catasetum is worthy of a place in the most select collections in virtue of its cup-shaped flowers, which are about four inches in diameter, ivory white of wax-like substance and of great beauty and durability."

"With respect to the catasetums generally, it will not be saying too much to assert that the time has arrived when they should be taken in hand more earnestly by our orchid growers, as they are really worthy of more attention; but if success is to be obtained with them, it must be in the same way as with other plants, viz., by giving them space to themselves, and treating them properly. Mixed up one here and one there, on the stages with other plants, they are never satisfactory. Catasetums like plenty of light at all seasons, and in their general culture they require much the same treatment as deciduous dendrobies, viz., extra heat and plenty of water when growing, and a thorough season of rest with but little water (or none, unless signs of wrinkling be seen in the pseudobulbs), from the time the leaves turn yellow until the next growth appears; but during this resting time they should be placed in a good po-

sition on a shelf near the glass in a house in which the temperature ranges from 50°—60°, and in the culture they should be associated with cynoches and mormoules. Where convenient, they may be well grown in baskets."

STAPHYLLEA COLCHICA.—The best of the genus. A few years ago we knew it, but erroneously, as *S. Bunnaldia*. This forms a large-sized shrub, but the smallest plants blossom freely. It forces easily, and there is a purity, beauty and uncommonness about its clusters of waxy white flowers that command appreciation. It is yet scarce, and large plants expensive, but if some of our florists will prepare for and give it a trial next year I think they will be pleased with the result. Start it slowly, gradually, and don't force hard till after the buds break.

SNOWBALLS.—What about *Viburnum plicatum*? If you have not already done so, try a bush or two. Begin slowly and don't hurry them up till after the buds break. There is no need of having the bushes established in pots or tubs before you start to force them; just lift them with all the roots and as good a ball of earth as you can get to them and plant them in a bed in the greenhouse, or in tubs or pots. Use tubs sawn out of the bottom ends of cement barrels. W. F.

The Carnation Disease.

I believe, with L. W., in Jan. 15 number, that the "disease" which kills a great many carnations is maggots. Several years ago while employed in Rochester I saw a house filled with DeGraw and La Purite that looked healthy until about the middle of December, when they began to die; and after careful examination found just such maggots as he describes. On inquiry I found also that the same soil had been used on the same benches for several years, with the addition of a little manure every fall, and that the plants were from stock that had been benched in the same soil several years in succession.

Geneva, N. Y.

C. E. H.

IN JANUARY 1884, I planted a single calla plant in an old arch kettle, in swamp muck, and covered with six inches of water. In the winter of '85-'86 I cut from it thirty-seven flowers. As to treatment, the water was dried off in summer, not allowing the soil to become dust-dry, and when the plant showed signs of starting it was lifted and about six inches of soil removed from the bottom and replaced with fresh cow manure. It was then covered with water as before, and though the plant occupies an unfavorable position (under a board ventilator), it has at the present time twenty buds and flowers, and from present indications, will produce fifty blooms this season. R. E. S.

The Bennett.

BY ERNEST ASMUS.

Noticing the inquiries as to the paying qualities of this rose perhaps it would interest your readers to hear my experience with it; I therefore give below the exact number of flowers cut and amount realized from 2,000 young plants for one year. About 800 of the plants have done very poorly in both bloom and growth, while some of the others have grown as strong as Bon Silenes and Safrano ever did with me in the same length of time. The period covered by annexed table was from September '85 to August '86.

MONTH.	BUSCH ET. REALIZED.	AME.
September	1,530	\$24.98
October	5,340	\$31.50
November	5,405	\$65.48
December	3,205	\$34.10
January	2,044	\$31.50
February	3,608	\$47.58
March	9,644	\$68.22
April	9,201	\$64.31
May	1,489	\$10.77
June	5,768	\$28.20
July	2,435	\$10.44
August	5,217	\$28.24
Total	66,113	\$5,727.11

The same plants were kept over and bloomed this season in the same soil, merely drying them off in summer—which I think was a mistake, as in one house which was not so severely dried as the others, we cut by far the most and the finest buds. We have had very few poor flowers this year, though we had many blue and unsaleable ones last year. Below I give the results of five months' cutting from the old plants this season.

MONTH.	BUSCH ET. REALIZED.	AME.
September	3,028	\$42.62
October	2,868	\$37.00
November	4,350	\$64.51
December	2,587	\$35.16
January	2,265	\$29.00
Total	22,098	\$1,530.75

In order to compare these results with those obtained from other roses I will state that from 1,800 Bon Silenes which were in good condition—always looking better than the Bennetts—and judging from appearances, should have produced more buds and realized more cash. They did give more buds but note the amount obtained for them: From Sep. 1, '85, to Aug. 31, '86, were cut 104,874 buds, which sold for \$1,771.69. This year we have 2,000 Bon Silenes which are the best looking plants I have on the place; the product for the last five months up to Feb. 1 last was 56,020 buds, which sold for \$1,430.45. This shows a balance of \$149.50 in favor of the Bennett for the last five months, both varieties occupying the same amount of space with the Bon Silenes in first-class condition and the Bennetts not at their best. There is no doubt in my mind that under proper treatment the Bennett will prove to be one of the best paying roses I have ever handled, and I would advise all who think of throwing them out, to give the subject careful consideration before doing so.

West Hoboken, N. J., Feb. 9, 1887.

The Bennett.

I consider this the most profitable rose grown, and it is doubtful if any introduction in the next ten years will beat it. A correspondent of the *FLORIST* says that florists around Philadelphia are throwing the Bennett out; if any are doing so they are few and those who do say so probably never had many plants to throw away. If the rose had proper treatment they certainly would not be so inclined. A year ago I told Mr. Hill that it was the best red rose yet introduced, and I repeat the statement to-day. It

will produce as many buds as any rose ever planted; and take them on an average they are more perfect in every way. How many poor colored Bon Silenes, how many bluish Perles and Mermets will you have at times through the winter? The Bennett has come to stay. As for the cultivation I don't think there is anything left for me to say; keep an even temperature and never let your house get chilled. There will be no more flowers grown this year than ever before, and those who will give it the treatment due to it will have their reward.

Belmont, Phila. ROBERT DENNISON.

A Correction.

Your correspondent, "C," is in error in stating that I "would throw out my Bennetts, never to grow them again." I told the gentleman that I would pull out about 300 plants that were left in a bed from last year and were not doing well; this is the only foundation for his recent statement. I consider the Bennett—as all reasonable florists do—to be the most profitable rose grown to-day and feel sure that it will exceed any other rose in freedom of bloom. Does this look as though I did not intend to grow it again?

Narbeth, Pa. W. H. HANSON.

Plant Notes.

BY W. F.

A CHRYSANTHEMUM HOUSE.—Mr. E. P. Willard, of South Bethlehem, Pa., is about to build a substantial greenhouse, 81 x 24 feet, for chrysanthemums. Inside, along the sides of the house, are to be beds into which the plants will be set out in spring, summered and bloomed. The middle of the house will be occupied by benches for pot plants.

GLOXINIAS.—David Allan, of Boston, who grows gloxinias extensively planted out in frames in summer, and in more limited quantity in pots in the greenhouse in winter, writes me, apropos of my notes, page 221, that he gets quantities of bloom in winter without much trouble. David makes a specialty of gloxinias, so does Charlie Sanders, of Brookline, near Boston.

STREPTOSOLEX JAMESONI.—From a batch of cuttings, struck last April, I have now, middle of February, a solid bank of orange flowers. Plants are three to four feet high, and each bearing a large terminal and several lateral bunches in full bloom; they are in 6-inch pots, but have risen a little out of the pots—such a mass of roots they make. Old plants, six and eight feet high, bear larger bunches. One of the easiest of all plants to grow, sure to bloom and showy in masses. I plunge it out of doors in summer, and in winter keep in house having a night temperature of about 50°.

MATERIAL FOR PROPAGATING.—In the case of dracaenas, crotons, variegated screw-pines and other plants where large cuttings or slips are used, and it is more desirable to insert these singly into small pots than several into a pot, or in batches in the bench, I find that the best material I can use for filling the pots is fresh sphagnum moss, chopped fine and mixed with about half its bulk of sharp sand. All kinds of cuttings root readily in it. It holds the cuttings firmly in place, and retains moisture and lessens the need of frequent waterings.

MARIE'S HARE'S-FOOT FERN.—DAVID LIA MARSH.—Some three years ago lots of these ferns were imported from Japan and sold at auction and otherwise in this country. The rhizomes with a little moss

were woven into baskets, hoops or other devices, and these, when in full leaf and hung upon a nail in the window or greenhouse, were odd, fresh, green and pretty. We got a couple of hoops at Young & Elliott's, but instead of hanging them up on pegs to parch to death, I cut the hoops and laid them on the surface around the edge of a 2-foot pan, containing a white lapageria, at the north end of a cool greenhouse. The fern has prospered amazingly, covered the top of the pan and half-way down its sides all round. In November, or early December, it loses every frond, for it is thoroughly deciduous, but about the end of January comes forth again, and by the end of February is a solid hill of the most perfect fern fronds. Excellent for cutting.

MILLA BIFLORA FROM SEED.—"Just try a few," said John Thorpe, as, last fall, he picked me some seed pods off his plants in the nursery rows. I sowed them in pots in a warm house. Feb. 4, and on the 14th found the seedlings were coming up as thick as if they were a crop of onions. It is a white-flowered, summer-blooming, Mexican bulbous plant, which has within the last three years become very popular and widely distributed. In cultivation it often exceeds its specific signification, and bears three, five or more flowers to the scape. In summer it is planted out in rows, as we do gladioluses or tuberoses, and, like them, lifted in fall and stored over winter. Louis Siebrecht grows it for cut flowers and is much pleased with it.

A Blue Rose.

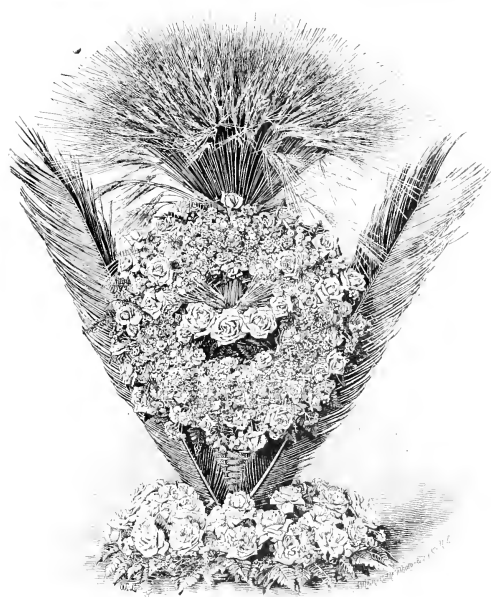
A gentleman living fifteen or twenty miles west of here told me that he found a blue rose growing wild in the old battlefield of Little Springs. He gave me a plant, and when it shows the true color I will send you a "bluen." The temperature for the last three weeks has averaged about 50°, but I look for some severe weather before spring opens. Sometimes we have very treacherous weather between Jan. 1 and May, that is, a great deal of spring weather during January and February to be offset by cold snaps during March and April.

Will some one please give instructions for raising palms from seed?
Burnside, Kv. ELLIS STEPHENSON.

Propagating Beds

Every propagator under glass is more or less bothered with the fungus of the cutting-bench. Yesterday, when walking through the greenhouses of J. W. Colwell, I noticed what to me was a novel way of nuking up a sand bed for cuttings. The bench was not more than two inches in depth, which was more than filled with sand; i. e., the centre was highest and gradually and uniformly sloped to the sides. Mr. Colwell told me that when watering the cuttings the fungus is washed off over the sides, it struck me as being a good idea and well worthy a trial.
E. L.

MICE DESTROYING PLANTS.—Noticing an inquiry in regard to methods of destroying mice which are troublesome in greenhouses and cold frames, would say that the only remedy I have found to be successful is to sprinkle the plants with paris green in water. I was sadly troubled with them several years since, having a thousand fine verbenas destroyed by them one winter. The injury is done by field mice whose diet is entirely vegetable, hence "trough on rats" will not destroy them. R. H. HEATH.



NEW FUNERAL DESIGN.

New Funeral Design.

The handsome funeral piece shown on this page certainly presents a very rich appearance. It is a charming combination of roses, palms and wheat. There are two wreaths, one heavily fern-fringed at the base; on this stands a high basket, on the front of which is attached another wreath of roses and spring flowers. The wheat and some specimen roses ornament the center of this wreath. Two leaves of cypress spread like wings from the base to the top, where there is a surmounting of a sheaf of wheat. It was arranged by Hauff Bros., New York city.

Hot-Water Circulation.

Having a discussion recently with one of your subscribers on the subject of hot-water heating, he showed me what the *FLORIST* has had to say about it. I found a great variety of opinions expressed by its correspondents as to how the pipes should be laid in greenhouses to get the best circulation. It would seem as if this were a very simple matter to decide, but the writers are far from agreeing, and all of the methods offered must fail in a degree to give the best results.

I infer that the most common way heretofore has been to lay the pipes with a gradual rise from the boiler to the opposite end of the house, and with a descent from that point back to the boiler. Some have thought that if the water were carried directly up to the highest point at the start, it makes no difference what course

it takes in its going and returning, but the prevailing opinion seems to be now that the water, after reaching its highest level, as directly as possible, should gradually descend from that point throughout the rest of its course. This is what I understand to be called the "down-hill" plan, and seems to be very popular.

A little thought will show why even this plan is not perfect. The motive power of the circulation depends on the vertical height the water rises and falls, and the difference in temperature of the ascending and descending columns. The question, then, is how to make the most of this motive power. First, we should set the boiler as low as convenient—the lower the better—and should run the pipes to the highest level that it would be desirable to have them for heating. This gives us our vertical height. Next, to get the greatest difference in temperature possible, the water should rise as much as possible while it is hottest, and do its falling when it is coldest. But it is hottest when it first leaves the boiler, and coldest just before it enters again. Then it stands to reason that the water, on leaving the boiler, should rise at once to the highest point before it has had time to cool any, and remain as nearly as possible to that highest point, or the highest economical point for heating, till it has made its circuit, when, having done its work of heating, it is ready to be utilized as the heavier descending column. Generally, all points of rise and fall should be as far apart as possible. Of course, this is not

denying, in the least, the good results that may be obtained by other methods of laying pipes, but I offer it simply as the way to get the greatest amount of circulation with a given expenditure for fuel.

It should be borne in mind that the power which drives the current is small at the best, so that circulation, to be good, must not be cramped at any point; the pipes should be smooth inside, uniform in size, and should contain as few and as large bends as possible. It would be better, then, if instead of turning the water directly back at the farther end of the room, it were carried across to the other side by large bends at the corners, so that it will make a complete circuit of the house in its return to the boiler. This would also give a little increase in length of heating surface in the part of the house most likely to be cold, and slightly increase the difference of temperature required for the motive power of the circulation. If there are doors in that end of the house, the pipes should be carried over them rather than under them, because wherever there is a change of level the rising should precede the falling, or be on the warmer side of the bend, and the falling on the cooler side.

One writer suggests a stand-pipe near the boiler, running up a little above the water-level, and closed at the top by a valve, and then heating up to the point of a low steam pressure. He thinks the pressure of the steam in the upper portion of the pipe would accelerate the circulation. He overlooks the fact that the pressure would hold the water back in the boiler with the same force that it would propel it ahead—would push both ways.

Pipes are often put lower than will give the best effects, under the impression that radiation is all up and none down. But radiation is equal in all directions, so that the pipes will warm from above as well as from below, except by the slight difference that would arise from the circulation of air upward in their vicinity. It is as important that there should be good radiation, and at the right point, as that there should be a good circulation.

Your correspondents also frequently allude to the bad economy of heating large quantities of water. There can be no loss on that account, because a large body of water will take up the heat of the fire as well as a small one, and none of it can escape except as it is radiated into the room by the pipes and the boiler.

W. G. BLISH.

Hot Water Circulation.

BY JOHN G. ARNOLD.

Having read the interesting articles on pages 172, 193 and 194 in regard to circulation of hot water for heating horticultural structures, I would like to mention a few facts which have been brought to my notice during the last sixteen years' experience with hot water heating for greenhouses and forcing houses. I will not speak in regard to any particular pattern of boiler, but will say that circulation commences at the point where the action of fire is brought to bear on the water confined in the boiler, and from that point there should lead a cylinder above the level of the surface or crown sheet of boiler, at the point where the action of the fire is strongest, and the flame should be continued through the cylinder to the smoke-stack so that the full benefit of the fuel would be in use. The flow pipe to lead off from top of cylinder to structure to be heated.

In regard to circulation of hot water through pipes, I have known many cases where a bad circulation has been caused by a dip in the pipes from a sunken pipe, or a valve put wrong way up; also, in cases where pipes have dipped down under pathways, and where a spur or branch pipe has been taken from a flow or return pipe to heat a frame or a house at a lower level. All these cases will cause bad circulation, requiring much stronger fires, with loss of fuel. Now, on the other hand, I have never known a case where the circulation has been checked by a rise in the pipes. I have always found the pipes hottest at the highest point, and should say that all pipes ought to rise from boiler until a point is reached where you want to return and then drop perpendicular to the boiler.

Have as many flows and returns as the house requires, to flow the whole length of the house and return in sections to the main return and drop direct to boilers. I have 300 feet of direct flow heating six compartments, and the pipes that are the highest heat first, with all valves open, it makes no difference if 100 or 300 feet from boilers.

In another case I have a cucumber and melon house 150 feet long with top and bottom heat; the top pipes are several feet above the bottom heat pipes, and the bottom heat pipes are three feet above the main flow; the top pipes will heat if half turn of valve is open, while the bottom will have to be full open to heat if any top heat pipes are in use. Thus you see the hot water works best on a rise.

In a range of glass 500 feet long divided into eleven compartments, nine of fifty feet each and two of twenty-five feet, in one of the compartments of fifty feet, 100 feet from boiler house, I have a cucumber house with 2½-inch pipes about two feet above the regular pipes, and if you throw all the valves open in the whole 500 feet those 2½-inch pipes will be the first to heat from main flow and the reason is that they are higher than the rest. In regard to waste heat going out through smoke stack, as is the case generally, instead of having zinc flues have cylinder flues with 1½-inch water-way, tapped at top and bottom for one and one-half flow and return pipes; if two or three boilers, have flow and return connect with 2½-inch flow and return, and lead them into structure you wish to heat. This will make a rapid circulation when your fires are running; this can also be used to heat tanks for warm water, etc. And one great point in favor of this water-flue is that there is no danger of catching fire from over-heated flues.

Jobstson, N. J.

Hot Water Under Pressure.

Mr. Charles Anderson, in his very acceptable and interesting article on hot water under pressure, humorously alludes to our antiquated method of boiling the kettle with the cover off. The cover can be put on all but tight on our old systems by cutting away the open tanks entirely and closing up the pipes. For expansion carry a 1-inch pipe direct from the top of the boiler to the highest point the hot water has to reach in the system—the higher the better—terminating in an open keg and putting in brass thumb-cocks at the highest point in all the pipe coils to let the air out while the pipes are first filling up. This is hot water under low pressure and a great improvement on the open tank in the main flow.

JOHN SPALDING.

Hot Water Under Pressure.

This principal of heating, to be effective and economical, requires the use of coil boilers made of 1, 1¼ or 1½-inch steam pipes, and the water to be super-heated, which can hardly be done in common boilers.

If Mr. Charles Anderson, instead of using cast-iron boilers, will try to use plain coils, we will guarantee him a saving of about 50 per cent in fuel, and about the same on boilers. I have every reason to believe that the coil system, made of larger pipes and properly arranged, will apply to 4-inch cast-iron pipes with the same results.

DENYS ZIRNGIEBEL.

Water Lilies.

These beautiful and interesting plants are growing in popularity year by year. When the writer first began to grow the tropical kinds for cut blooms for market,



WATER LILY BLOSSOM.

some ten or twelve years ago, the general public knew nothing of the red, blue, pink and yellow sorts; now all lovers of flowers are more or less familiar with them. They are found growing in nearly every part of the world; and yet are so easily cultivated that all the kinds may be grown in one house, and even bloomed in the open air during summer when well started into growth under cover.

Nearly all, and especially commercial growers, have spare room in their houses during summer—when the blooms are most in demand—and might grow lilies in space otherwise useless at this season. Several plants may be started in one pan or tub, and when the ground is clear of bedding plants, carnations, and such other stock as is usually over by the beginning of summer, they may be transplanted singly into pans or shallow tubs for blooming; in this way little room is needed until it can be well spared. When the plants are through blooming they may be stored under benches, or in a warm boiler shed free from frost, and the ground cleared in time for fall plants. The roots should be started about two months before they are intended to be planted singly which will insure a good, strong growth, and little time will be lost in the blooming season. They should be started in a warm corner of the house or set on the pipes where not too hot, as they require plenty of heat to start them into growth quickly.

They require a good, rich soil to grow them well, say about a good third of well-rotted cow manure, and the balance good fresh loam, or sods chopped fine. They may be grown and will flower freely in

earthen pans eighteen or twenty inches wide and eight inches deep, half filled with the compost and filled up with water; but will give larger blooms and continue in flower longer if grown in half barrels or tubs half filled with the compost, although the pans give more flowers and are quicker. Where a tank which could be boarded over and set with pot plants for the winter can be conveniently built it would be most satisfactory and less trouble after once done.

All the kinds are desirable in a collection; but for florists' use a few distinct sorts are all that are necessary. One of the finest is *Nymphaea Zanzibariensis*, of a rich deep bluish purple shade, and producing under liberal treatment flowers nearly a foot across; a beautiful deep rosy pink variety of the above, *N. Zen*, rose, is as yet quite scarce, grows equally as well. *N. cerulea*, the best known of all the exotic sorts, is of a beautiful purplish blue, and although it does not grow quite so large as the above, is a very free bloomer, and one of the best for the production of cut flowers for market. *N. rubra* and *N. devoniensis*, a seedling of *N. rubra*, are both of bright crimson shade and produce flowers as large as *N. Zanzibariensis*, which open toward evening and remain open until the next forenoon, lasting, as do nearly all the nymphs, for five or more days. One of the most beautiful of all the lilies is the favorite *N. odorata rosea*, a deep blush or pink variety of our well-known pond lily, *N. odorata*, which it resembles in its full cup-shaped flower and in growth; the leaves are of darker green, with reddish tinge underneath. The blooms of this variety meet with ready sale. The above kinds will repay the florist best, although *N. dentata*, a large chalky white species from China, and *N. Bava*, yellow, a native of Florida, are desirable for variety.

The above remarks as to cultivation apply to sections of the country where the winter is severe. In California and our warm southern states they will do well out of doors; and where a pond or lake is convenient, or an outside tank could be built, nearly all the sorts will do well planted out.

Malden, Mass.

BENJ. GREY.

Her Majesty.

Mr. Wm. Bonner says he finds the propagation of this rose exceedingly difficult. With me it roots as freely as *Rosa Sile*, and during last spring I root several thousands in one of the much abused "north side" propagating houses, giving the same treatment accorded to other cuttings. My experience with this rose proves to me that it should be grown exclusively on its own roots, as it will out-grow any stock I have ever seen; many of my grafted plants died from this very cause.

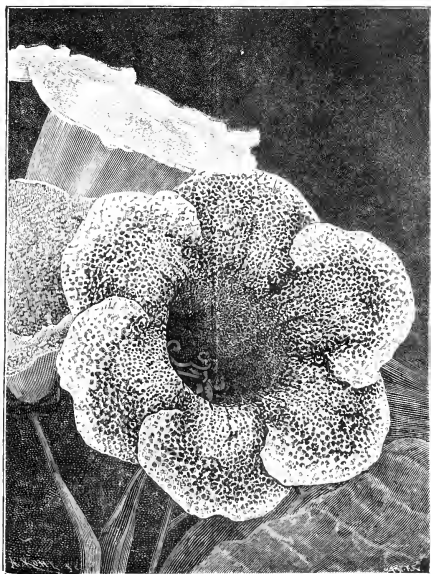
J. N. MAY.

Double Glass.

Please let me inquire through your paper if any of its readers can from experience state what effect double glass would have on greenhouses? I know it is used with good result in several places in Sweden. The glass is laid in putty with half an inch empty space between. I thought it might be of benefit in places where it is so low as 40° below zero, but how would it work in our hot summer? My employer proposes to build a conservatory about 40 feet high this coming summer, and I am a little anxious about the heating of such a high house in our severe Minnesota weather.

Minneapolis.

GUST. MALMQUIST.



NEW GLOXINIA

GLOXINIAS.—Few stove plants have shown more charming and novel variation during the last dozen years than the gloxinia. The engraving is a reproduction of one of a beautiful series of photographs sent us by Mr. Heinemann, the well known seedsman of Erfurt.—*London Garden.*

Death of Herman DeVry.

Mr. Herman DeVry, the well-known superintendent of Lincoln park, Chicago, died Feb. 25. He has been suffering for some seven months from an aggravated form of rheumatism. His foot was amputated about three months since, and recently blood poisoning set in and resulted in his death. Mr. DeVry came from Hamburg, Germany, and was 38 years of age. He came to Lincoln park twelve years ago and for the last four years has been superintendent. He was widely known and recognized as a landscape gardener of extraordinary ability. Under his management Lincoln park became noted as one of the finest parks in this country. He was a member of many organizations, and the funeral was conducted with masonic rites.

ENGLISH holly was very thinly berried this season, and the *London Gardeners' Chronicle* suggests that in the absence of berries, small sweet or summer peas rolled in red lead or vermillion can be used as a substitute.

Trade Notes.

UNIONVILLE, PA.—Thos. F. Seal has sold his greenhouse business.

CANTON, O.—Charles Brown has added 8,000 feet of glass to his old plant.

CEDAR RAPIDS, IA.—The business of the late Samuel Bower will be continued by his son.

SOUTH BEND, IND.—Mr. August Schlag has purchased the South Bend Floral Co. and is now sole proprietor of that establishment.

SAN JOSE, CAL.—At the Citrus fair now in progress a full rigged ship constructed of over 100 varieties of flowers with similar rigging excites universal admiration.

NEW ORLEANS.—The N. O. Hort. society offers fifty diplomas for best collections of plants and cut flowers, to be shown at its exhibition beginning March 23, next.

WILMINGTON, DEL.—The Peninsular Horticultural society is preparing to make a grand exhibition next September. Mr. J. R. P. Polk is chairman of the executive committee.

GLEN COVE, N. Y.—Mr. S. L. M. Barlow contemplates taking down his large graperies and palm house, and erecting in their place graperies and forcing houses of modern style.

ALBANY, N. Y.—At the reception of the Fort Orange club, Feb. 11, the hall was lavishly decorated with palms and

other tropical plants. The table was laid with white linen through the centre of which was a scarlet plush scarf. In the center was a bunch of 700 roses—Niels, Jacques and Cooks.

KANSAS CITY, MO.—R. S. Brown & Son have moved a block south of their old location. C. E. Hampton has doubled the size of his Main street store and is tearing down his show house and store on Walnut street. Luncheons, parties, etc., with floral accompaniments, are in full swing at present.

TERRE HAUTE, IND.—Jno G. Hehl is travelling through Florida in his shirt sleeves and wondering if the thermometer ever drops below 80°. L. Hehl expects to attend the state meeting at Indianapolis. It is expected that about thirty will be present, and a strong effort will be made to establish a permanent organization.

ST. PAUL.—Mr. C. F. Lemke recently experienced a serious loss of plants in the greenhouses connected with his city store. A leaky gas main in the street caused the trouble, the gas, finding the easiest escape through the unfrozen ground surface covered by the glass, collected there so rapidly that a total loss of plants was the result.

WINNIPEG, MANITOBA.—The Manitoba Floral association is an organization of 110 lovers of flowers, formed for the purpose of promoting floriculture in Manitoba. For spring planting it is proposed to distribute to every member a well-established two or three-year old rose bush of the best and hardiest varieties obtainable, that the experiment may be widely tried of wintering roses in Manitoba. John Cape, P. O. box 217, is secretary.

ST. LOUIS.—Mr. Rieman, formerly with the Jordan Floral Co., is now manager for J. W. North. The Patti concert Monday last caused a lively demand for roses and a scarcity resulted. Jordan has a very fine lot of La France. For first-class Missouri garden Mermets, L. Armstrong takes the palm; I have never seen better. As one florist retails flowers at wholesale prices and another wholesales to retail buyers, the proprietors of the twelve floral stores on Olive street easily keep each other from going to sleep.

PHILADELPHIA.—The regular meeting of the Pennsylvania Horticultural society was held Feb. 15. Letters were read from the Netherlands, lecture at Washington announcing that medals had been forwarded to the society for the best display of tulips and hyacinths. A rare and peculiar variety of double Chinese primrose was exhibited by Frederick Sykes and discussed by the members. Donald McQueen, a well-known florist and gardener residing at 224 and Tioga streets, committed suicide Feb. 14.

WASHINGTON.—At the state dinner given by the president to the supreme court justices Feb. 17, the table center piece was a large oblong mound of half-blown open Silene roses, upon which were placed two open books of white immortelles, lettered in purple, "Law and Justice." Midway toward the ends of the table were bowls of March's Niels and Cooks, while at each end were crossed swords of white and red carnations. The greenhouse of John H. Hammer on Lincoln avenue was destroyed by fire Feb. 13. Loss on house \$150. On plants about \$70.

NEWARK, N. J.—Business has been booming; florists report that they have never done so much business for years as lately. Everybody seems to have been

giving a series of entertainments and flowers have been in great demand. Lilies were very popular for all occasions, but lilies of the valley were in the greatest demand for lunch parties. Of course, roses lead all other cut flowers, and the Jacque and La France were especial favorites. There was nothing particularly new this year in decorations except the wall pocket for vines. They are made of red clay in very fancy designs and can be hung on any wall without danger of soiling the paper or paper.

ALLAGHENY CITY, PA.—At the funeral of Dr. J. B. Richardson, Feb. 1, there was a floral piece representing a ball-ground executed in every detail with natural flowers. The "ground," about four feet square, was composed of smilax; the "base lines" were made of white carnations and the bases of red carnations. The "pitcher's box" consisted of white carnations, a ball of red carnations being placed in the centre. The "foul lines," at a distance of one foot from the running lines, were also made of white carnations. The "back stop" was composed of deep green ivy leaves and Marcell Niel roses. Two bats forming a cross were made of yellow immortelles, and another ball of red carnations was placed between the bats. The whole ground was surrounded by a fence of pink, white, red and yellow roses, lilies of the valley and white hyacinths. Another floral offering represented the "rising sun," consisting of a mountain landscape. The hills were made of ivy leaves, a rivulet coming from the mountain was represented by white carnations running through a meadow made of roses, pinks, lilies and hyacinths. The sun, in the form of a star, made of yellow immortelles, appeared over the summits of the hills.

Reminders and Suggestions.

ROSES.—Now is the best season of the whole year to put in the main batch of rose cuttings for next winter's work, and where it is not already done, no time should be lost in getting the entire lot into the cutting bench. Pot off those already rooted and place in a good, open, airy place. Do not stick them along the edges of the beds on the soil to get full of worms and be nearly smothered by the plants growing above them, as some would advise, but give them the best position possible in the house if you want them to be profitable next winter. For large blooming plants some care will be necessary now to keep down red spider and other insects. The best means of guarding against mildew, will be a free circulation of air on every favorable opportunity.

As the sun increases in strength more care will be required in watching for dry spots on benches, etc., as plants becoming too dry are sure to suffer during bright, sunny days. Syringe liberally in the morning on all favorable occasions, and keep all weeds and dead leaves picked off, in other words, keep everything about the houses and plants clean and healthy. J. N. M.

TIBERON'S BEGONIA seed should now be sown in order to have the plants in a condition to bloom satisfactorily during the ensuing summer. When sowing is put off until later the young stock has not enough time to allow of its acquiring the requisite strength to flower as it should do till the season is too far advanced. In preparing soil when to sow seed of almost any kind care should be taken that it is sufficiently light in texture, as if at all close and adhesive when the seedlings have to be removed from it the tender young roots are sure to get more or less broken, a mishap that it is necessary to guard against. Some growers use loam in which to raise seedlings of these begonias, but unless it can be had of a free, sandy nature, I prefer peat, passing it through a fine sieve and adding some well decomposed leaf-mould and sand. Fill the pans with the material to within an inch of the rim, pressing it down so as to make the surface smooth, distribute the seeds thinly, and cover lightly with a little of the finest of the soil. In a temperature of 60°, or a few degrees less, the seed will vegetate; from the time that the little plants appear they must have plenty of light; in the absence of this they make weak growth. Whilst quite small they may be pricked off into pans, six boxes an inch or two apart; if their removal from the seed pan is delayed, the roots, which are more impatient of injury than those of most things, suffer.—*London Garden.*

MR. LOUIS STEINERT, East Hiusdale, N. Y., has had a very severe attack of muscular rheumatism; he was unable to move for nearly a week.

THE Polyantha rose, Miniature, is a rapid grower and remarkably free bloomer. Plant only six to eight weeks in the cutting bench are covered with bloom.

HYBRID ROSES.—Will some of the FLORIST's numerous and experienced correspondents give me a little instruction on the management of hybrid perpetual roses, in pots, which have done flowering and which I wish to retain in pots for next winter's flowering? they are in 10 and 12-inch pots. Will they require larger pots? A. M. P.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order.

SITUATION WANTED. By a gardener, competent, respectable man of experience and ability; age 40, married, small family; good references. Address: R. H. H. 23 De La Platte, Chicago.

SITUATION WANTED. By a married man with two children, as gardener, 25 years experience; good recommendations as florist and greenhouse manager. Address: F. H. H. 23 De La Platte, Chicago.

SITUATION WANTED. As house gardener in a first-class establishment, with 25 years' experience, without causing a direct draft, and above all put a little air on as soon as the sun strikes the house and raises the temperature to say 65°; then keep adding more gradually as the temperature rises. Treated this way roses will take a greater amount of air than many suppose, and they will not suffer from mildew in the spring, as frequently occurs; and what is of very great importance, they produce much better buds under this treatment than when kept close. As the sun increases in strength more care will be required in watching for dry spots on benches, etc., as plants becoming too dry are sure to suffer during bright, sunny days. Syringe liberally in the morning on all favorable occasions, and keep all weeds and dead leaves picked off, in other words, keep everything about the houses and plants clean and healthy.

SITUATION WANTED. By a first-class practical florist, capable of heating 500 to 1000 feet of 4-inch pipe; Hitching & Co. or Weather's preferred; state of residence, Orange Co., N. Y. Address: P. O. Box 172, Monroe, Orange Co., N. Y.

WANTED. Catalogues of florist, greenhouse and garden supplies. W. J. WHITTINGTON, Litchfield, Minn.

WANTED TO EXCHANGE. Pelargoniums for double Petunias or tuberose bulbs. GEO. W. DOWELL, Fort Wayne, Ind.

WANTED. A good second-hand greenhouse heater, capable of heating 500 to 1000 feet of 4-inch pipe; Hitching & Co. or Weather's preferred; state of residence, Orange Co., N. Y. Address: P. O. Box 172, Monroe, Orange Co., N. Y.

WANTED. By a practical florist, full charge of a private place; has had eight years' experience with over 100,000 cuttings of roses and shrubs; strictly preferred; first-class references; eastern states preferred. Address: J. J. J. 29, CUREAU, FLORIST, Chicago.

WANTED. A head gardener of the highest order in every particular, one thoroughly practical and capable of skillfully managing large ornamental grounds, extensive display of rose and plant houses, kitchen garden, etc., on a private and very desirable estate, a first-class assistant and a thorough florist. Address: JOHN THORPE, Queens, Long Island, N. Y.

A RELIABLE party with some cash and a thorough knowledge of the business can secure an interest in an established establishment. Address: G. E. care AM FLORIST, Chicago.

WANTED TO SELL OR EXCHANGE. The finest mixed and large strains of pansy plants; we have 100,000 cuttings of blue, white, yellow, pink, thousand, or lake roses, Carnation pinks or Gladiolus bulbs in exchange. Address: M. T. T. 29, CUREAU, FLORIST, Chicago.

FOR SALE. Fine white aster seed, \$2.00 per ounce. JOHN P. TONNER, Florist, Mont Clare, Ill.

FOR SALE. A fine lot of smilax plants: per 1000, \$1.00; per 100, \$2.00; also Pelargoniums one foot high, per 100, \$6.00. L. J. SMITH, Madison, Wis.

FOR SALE OR EXCHANGE. Tropical plants, ferns, and other house plants, and all kinds of BONNER SPRINGS SOCIETY, Bonner Springs, Kans.

FOR SALE OR EXCHANGE. Extra large Pearl tuberose bulbs, \$2.00 per 100, \$18.00 per 1,000, or will exchange for tea roses, Camellias, etc. E. HALL & SONS, Clyde, O.

FOR SALE. Verbenas, choice selection, including mammoth strain; healthy plants, free from rust, soil plants, well branched, etc. For \$2.00, \$4.00, \$12.00, \$20.00 for 250; rooted cuttings, \$1.00 per 100, \$8.00 per 1,000. JOSEPH E. ROSSALL, Salem, O.

FOR SALE. Rooted cuttings of Coleus and Achyranthes, at \$1.00 per 100, \$8.00 per 1,000. Would exchange rooted cuttings for ornamental tropical plants. C. W. McIVER, Chicago, Ill.

FOR SALE. Greenhouses, well situated in a city of 10,000 inhabitants, within 17½ miles of Boston; houses well stocked; first-class retail trade; large and fine collection of plants, flowers and good stable; price \$15,000; place may remain on mortgage; a good home for sale. Address: J. C. 1310 3rd, Box 520, Boston, Mass.

FOR SALE. Well-established florist business, situated in a growing city with 25,000 inhabitants; 15 years' experience; large and fine collection of plants, flowers and good stable; price \$15,000; place may remain on mortgage; a good home for sale. Address: J. C. 1310 3rd, Box 520, Boston, Mass.

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The Out-Flower Trade.

Latest Floral Fashions.

FROM NEW YORK, CORRESPONDENT.

Flowers in all the shades of yellow are in request by flower buyers; there has seldom been such a run on golden blossoms. Room arrangements, embellished with genista, *Streptosolen Jamesonii* and acacia plants, are certainly gorgeous. What is known here as a "hedge decoration" is made with dwarf plants placed in a line or hedge around the base of the pier glass, around the hearth, at the base of cabinets, which in many of our finest houses extend around the best part of the drawing rooms. These hedges of yellow blooming plants are finished at the corners of the room by a group of tall specimens, acacias or genista, of which symmetrical bushes are now brought in. The only set pieces in a hedge arrangement made yesterday were four rush-straw enses, on which was a large crushed sun hat. The framework was massed with blooming smilax, and the hat was wound with myrtle vines so as to define its graceful shape. It was filled with sprays of acacia and *Marchal Niel* roses.

Begonia metallica is introduced into some arrangements with elegant effect. Very large plants of this are brought in this spring, and the leaf is a highly ornamental addition to the foliage designs that bestow such artistic grace. For the Patriarch's hall last week there were elaborate wall sprays of begonia, asparagus, and southern vines, with *lignonia venusta* intermingled; between each mirror and window space was a different tracery of foliage and a different flower for festooning. *Anaryllis* and tulips were very showy among the weavings of the several sorts of leaves.

A novel wedding decoration was made lately with pansies and acacia. It was for a day wedding when gas was used. A canopy of pansies formed a velvet-like covering for the bridal party. The flowers used were selected for golden and purple tints. Acacia sprays fringed the design, which on each side was built out by acacia plants and tree ferns.

The "dude's collar basket" is the name given the most fashionable receptacles for flowers—used for gifts or German favors. The baskets are made in several delicate tints and are very tastefully bound with satin ribbon to match. The front of the low basket, which has a high handle, is turned back exactly as are the extreme stylish collars. The opening can be filled with blossoms or sprays in a very graceful way, to appear drooping or half-tumbling out. These baskets are in brisk demand. The blue ones are filled with forget-me-not, the purple ones with lilacs, and the yellow ones with daffodils. Some very dainty favors, just introduced, are easels of light straw, on which in force, is fastened a most little crest. When filled they are extremely pretty. A considerable number of these are ordered for souvenirs. There is a revival of the sun hat for a German favor. The hat is of imitation Leghorn, has considerable crown and a wide brim. The crown is trimmed half around with satin ribbon, which is drawn up to hold the brim together. On the bare space of the crown is caught a cluster of long-stem rose buds, usually *Bon Silences* or *Bennetts*. Then the hat is filled either with marguerites, blue daisies, *mignonette*, lilacs, or daffodils.

At a German given last evening the ingenuity of a leading florist was displayed in the favors which were all some easily-

dominated article of the toilet. There were bunches of lilacs, scarfs of forget-me-nots, fichus of rose buds, and plastrons of daisies. Very jaunty floral aprons, and side pockets of satin, filled with blossoms were among the seventy-five favors. For the men boutonnières were provided, no two of them being alike. The favorite coat decoration at present is formed of two single daffodils, with tiny acacia sprays festooning these. Forget-me-nots are also much used with blue daisies for boutonnières. They are not worn as large as they were in midwinter and are formed quite round. For weddings and full dress occasions, a very narrow ribbon to match the color of the flower is tied around the stems and the ends cut quite short.

Irregular loose bunches tied with ribbon with short ends is the most stylish bouquet. Two kinds of flowers are used, and sometimes three. For instance, a cluster of *Baroness roses* and white lilacs with a few white violets where the stems are tied. A cluster of *Marchal Niel* roses and acacia sprays, *Memoirs* roses and *mignonette* are extremely fashionable for opera bouquets. From fifteen to twenty roses are used with from twelve to fourteen spikes of *mignonette*. An orchid wedding bouquet made last week was composed of *Cyclogyne cristata* and *Adiantum Farleyense*—an exquisite combination. There was one cattleya in the center.

The demand for orchids is increasing fast, particularly for table ornamentation. Yellow plush table cover with a center piece of asparagus and oncidiums, yellow wax candles in the candelabra and orchids and slender vines of asparagus climbing over the silver and golden branches is elegant. A fine piece of work lately in dinner decoration was a "lily dinner." The cover was white plush. The center of Farleyense ferns and lily of the valley. From each end of the oval center bed came a garland of ivy and lilies of the valley. This was most gracefully adjusted in an irregular but natural way and was finished at the candelabra, which stood diagonally opposite, at each end the table with a tassel of lilacs. Another lily arrangement was made with water-lilies, which are sent from eastern conservatories and also from the south. A silver swan resting on a glass plaque to represent water, was filled with aquatic foliage and lilies. The plaque was surrounded with a rich mat of cyperus, calla leaves and asparagus. The water lilies were these lilies with foliage tied with water green satin sashes.

Mignonette is very favorite for table embellishment combined with daffodils. Where the white *mignonette* is used the combination is excellent. Yellow Bohemian glass dishes filled with yellow roses, acacia and daffodils are elegant on the table. A simple three-quarter banking of the mantle piece with tulips is the only decoration of the dining room.

Young ladies are affecting cyclamen for these luncheon parties, and it is a dainty blossom for this purpose. On a white silk or satin cloth a low glass dish is filled with the cyclamen. The small corsage bouquets are composed of this flower combined with purple and white violets. Sometimes the favors are made solely of foliage with just a bit of daphne, a spike of *mignonette* or a few violets for odor. Balls of *Lycopodium* are very appropriate for the dining room and have a restful effect.

Some very dainty work is done in trimming christening robes of infants and young children with natural flowers. A baby was carried into church last sabbath wearing a cloak of white silk mull which

was fringed, hood and all, with lilies of the valley. The cloak was thrown off when the mother took the child. Its robe was traced in a vine pattern down to the edge with daisies. Its cap was bordered with double bouvardia. There are several new designs in rush straw for new baby gifts. A standard bassinet is one. It is made up with small flowers and white or baby blue ribbons.

New York Retail Prices.

Perles, Niphetos and Souvs, \$1.75; *Mermets* and *Bennetts*, \$4; *LaFrance*, \$3 to \$4; *Bon Silences* \$1 to \$1.50; *Jacques*, \$9; *Anna de Diesbach*, \$6 to \$9 a dozen; *Ann. Beauty*, \$1 to \$1.50 and *Papa Gontier* 20 to 25 cents each. *Carnations*, 50 cents to \$1; tulips, *Konans* and *lily of the valley*, \$1; *mignonette*, 75 cents, and *Calendula metior*, \$1 a dozen. *Lilac*, \$2 a bunch; *Longiflorum lilies*, 30 to 40 cents each; *callas*, 20 to 25 cents, and daffodils 15 cents each. *Violets*, \$1 to \$3, white violets, \$3, and pansies \$3 a hundred. *Dutch hyacinths*, 20 to 25 cents a spike.

Catalogues Received.

Steele Bros. & Co., Toronto, Ont., seeds; *Michel Plant & Seed Co.*, St. Louis, plants and seeds; *D. M. Ferry & Co.*, seeds; *W. Piercey*, London, England, plants; *J. J. Crussman*, Clarksville, Tenn., plants; *H. Jeyer*, New London, Ia., seeds; *John R. & A. Murdoch*, Pittsburgh, Pa., seeds, plants and trees; *V. Lemoine*, Nancy, France, plant novelties; *J. L. Dillon*, Bloomsburg, Pa., plants; *Bush & Son & Meissner*, Bushberg, Mo., nursery stock; *E. Bonner & Co.*, Xenia, O., plants; *John N. May*, Summit, N. J., roses; *Beach & Co.*, Richmond, Ind., plants; *W. D. Lane*, Middlebury, Vt., plants; *W. W. Coles*, Claymont, Del., plants; *John Sand*, Washington, D. C., roses; *H. C. Harman*, South Bend, Ind., seeds; *A. Giddings*, Danville, Ill., plants; *E. A. Keese*, New York, seeds; *A. Whitcomb & Sons*, Lawrence, Kans., plants; *Robt. Milliken*, Emporia, Kans., plants; *C. E. Allen*, Brattleboro, Vt., seeds and plants; *Joseph Breck & Sons*, Boston, Mass., seeds and plants; *Henry K. Simons*, Greenfield, Mass., seeds; *I. N. Kramer & Son*, Marion, Ia., plants; *Webster Bros.*, Hamilton, Ont., plants; *Gardner Bros.*, Freeport, Ill., seeds. *R. S. Brown & Sons*, Kansas City, Mo., plants; *Croze Amy*, Lyon, France, plants; *Chas. L. Barr*, Springfield, Mass., seeds; *V. H. Hallowell*, Son & Thorpe, East Hinsdale, N. Y., seeds, bulbs and plants.

THE PROPERTY in England recently purchased by Mr. William Robinson, the editor and proprietor of *The Garden, Gardening Illustrated, and Farm and Home*, consists of a beautiful old house (built in 1569), with nearly 300 acres of hills, woods and water. On it he has been as busy as possible, and with many men, building and landscape working for the past year and a half. His papers have been unprecedentedly successful, and he has prospered enormously by them. No man better deserves success. For the past twenty five years he has been one of the most brilliant plants in the horticultural firmament. He himself is a trained practical gardener; so, too, are all the members of his staff, also Spanwick, his publisher. We regret to learn that that noble old man, John MacHutchin, the associate editor of *The Garden*, has in a few papers lately. Mac has been connected with *The Garden* from its birth, and for a score of years before that had been associated with Lindley on the *Chronicle*.

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The Advertising Department of THE AMERICAN
FLORIST is for Florists, seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.50¢ Advertisement for March 15th issue must
REACH US by noon, March 5. Address.**THE AMERICAN FLORIST CO., Chicago.****MAIL TRADE.**—Several houses who do
a large plant mail trade report that spring
trade has opened well, the orders already
coming in freely from the south.THE fifth annual report of the New
York Agricultural Experiment station,
Geneva, is at hand. It is a neat volume
of 398 pages, and contains much of value
to the agriculturist.MESSRS. F. HALL & SON, Clyde, O.,
send us a bud and bloom of a seedling
rose raised by them from Marechal Niel,
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ago. They state that it is a more rapid
grower and better bloomer than its
parents. The flower sent much resembles
M. Niel in color, but is considerably
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Cinerarias and Calceolarias.

To obtain good specimen plants of cinerarias, the point of the centre shoot has to be pinched out when it has grown two or three inches. The lateral growths require to be tied out as soon as they are long enough. A strip of tarred twine is tied underneath the rim of the pot, to which they are tied down. The plants require to be looked over about once in two or three weeks, to do this, and to remove any leaves that may happen to decay. If green-fly is seen anywhere fumigate at once. Nearly all our plants have been propagated from offsets this year, and are quite as strong as the seedlings. The plants ought to be placed quite close to the glass roof, and those plants that have quite filled their pots with roots are much benefited by being supplied occasionally with very weak liquid manure water.

The winter treatment of the herbaceous calceolaria is very much the same as that of the cineraria. So seldom are the plants raised in any other way except from seeds, that I will but remark that propagated plants can be grown fairly well by taking the growths any time during the summer with a portion of roots attached; these should be potted in sandy soil, using thumb-pots, and as soon as the roots have laid good hold of the soil, repot them in larger pots, when they can be grown on as seedlings are. Seedlings make the strongest plants and the best furnished specimens; and when the seeds have been saved from the best well marked varieties the probabilities are that distinct good forms will be obtained, and the anticipation of their flowering adds greatly to the pleasure to be derived from watching the growth of healthy good specimens. Green fly does not spread much at this season, and it is best to destroy it by fumigating, as no plants are so liable to its attacks as these.—JAMES DOUGLAS, in *Gardener's Chronicle*.

BOUVARDIAS—The difficulty that exists in getting cuttings of bouvardias to root when made from shoots that have been grown in the way that most things succeed under, induced growers of these plants to resort to propagating them from root cuttings, a process that will generally answer for any plant which there is a difficulty in increasing. But it is found that if the old plants that are to produce cuttings are dried off for a few weeks, so as to stop growth and cause the leaves to fall, the young shoots produced in a genial temperature during the branches have been cut back and the roots well moistened will root as readily as those of a fuchsia if taken off with a heel. Stock plants that during the latter part of autumn have been treated in this way will shortly furnish an abundance of cuttings, as almost all the eyes start immediately the plants are subjected to heat and moisture. When the shoots are about two inches long they are in a condition to strike; they will root readily in ordinary stove heat, kept moist and close.

A FLORIDA company has purchased a 200-acre plantation for the cultivation of flowers suitable for the manufacture of perfumes.

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E. POWELL.
[The truss sent bore nine single scarlet florets of remarkable size. We are unable to name it.—ED.]

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from the propagating bed if ordered early will answer every purpose, being most conveniently and cheaply handled.

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BECAUSE, having been several times shown to the public, inquiries are pouring in for it; it is already fashion's favorite flower.



Mrs. John Laing

— AND —

METEOR.

Space will not admit of any description of these two grand new roses.

BE SURE TO SEND FOR OUR DESCRIPTIVE CIRCULAR.

CHAS. F. EVANS,

Notice Future Advertisements.

STATION "F," PHILADELPHIA.

Cincinnati.

Two weeks of clouds and rain have played "ho-ho" with roses and young stuff in the greenhouses.

A dinner table the other day was decorated with a floral swan made of white geranium blooms and hyacinths, upon a bank of ferns.

Cincinnati brides are nothing if not original. One of the fair ones carried a bouquet of silvery white fairy flowers to the altar last week.

In just the proportion that bougainvées are increasing in size, corsage bunches are growing smaller. Impetuous swells rejoice at the fashion, but it is hard on the florist.

Sunderbruch and Critchell are both booked for pieces at the coming exhibition at the Chicago convention of the Society of American Florists. They will fully sustain the Queen City's established reputation for magnificent floral work.

One of the handsomest funeral pieces seen here in a long time was made up by Sunderbruch for the Turner society. It was a great ivy column and upon the base there rested a lyre of callas, eucharis, white carnations, lilies of the valley, Niphetos, hyacinths and freesia.

Mitchell has three houses full of the American Beauty rose, but the cut does not average two dozen buds a day. The Beauty is the best rose for quality and odor, but it is not quite prolific enough for local growers. Even \$1 a bud hardly pays for the cost of its production.

Huntsman had orders for several floral valentines. One, sent to a Turkish rug manufacturer, was a star and crescent. The former was formed entirely of red carnations and the crescent was a mass of lilies of the valley and violets. The "billet doux" was tied to the design by narrow silken ribbon.

The canopy which Harry Sunderbruch built to shelter a bride the other night was remarkably handsome. The design was not new, but in its structure original ideas were carried out. The edge was scalloped with white flowers and the smilax which covered the top was ribbed with lines of pink buds.

"I've got a great many varieties of cat-telvas in bloom," remarked B. P. Critchell. "In New York they would bring \$5 or \$6 a dozen, but here you can't get anything for them. People come in and say, 'Oh, that's an orchid, is it?' How lovely!" but they don't buy." Cincinnati, it is to be hoped, will be educated up to orchids in time. A dozen private collections give promise of coming popularity.

"REN."

SCILLA SIBERICA IN POTS. As blue flowers are by no means strongly represented among forced plants at this season except amongst hyacinths, the fact of the readiness with which this squill can be forced seems to be generally overlooked, for it is seldom seen treated in this way, though it is as amenable to forcing as a tulip. During the dull days of the early part of the year some pots of it form bright and cheerful objects in the greenhouse. With regard to the comparative merits of this scilla and the newer chionodoxa, I may say that here in London an exposed spot the chionodoxa is often greatly damaged by March winds, which the sturdier habit of the scilla enables it to resist. Where this squill is employed indoors after the blooms are over the pots should be sheltered by a frame for a little while, and then the bulbs may be planted out. *H. P., in London Garden.*

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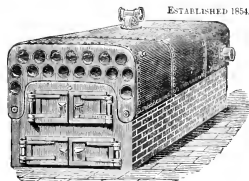
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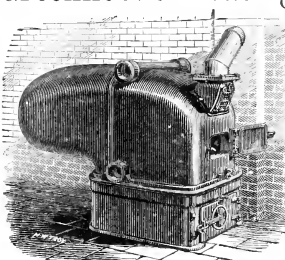
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THE AMERICAN FLORIST



America is "the Prow of the Vessel; there may be more comfort Amidships, but we are the first to touch Unknown Seas."

Vol. 11.

CHICAGO AND NEW YORK, MARCH 15, 1887.

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SOCIETY OF AMERICAN FLORISTS.—Robert
Craig, Philadelphia, Pres.; J. C. Vaughan, N. Y.
Pres.; M. A. Hunt, Treas.; Edwin Lonsdale,
Chestnut Hill, Philadelphia, Sec'y. The third
annual meeting at Chicago, August 16, 17 and
18, 1887.

THE WEEKLY FLORIST.—For the past
month this subject has been open to the
votes of our readers, and while the favorable
replies are numerous, yet so far as
received they would not justify the
change. We will still hold the question
open, for the FLORIST is not only able
but willing to come to the front in meeting
any wise demand for improvement,
holding that

"America is the prow of the vessel; while there
may be more comfort amidships, we are the first
to touch unknown seas."

CORRESPONDENTS will please give their
correct name and address with all
communications sent us. An initial or nom-
de-plume may be signed to an article for
publication, but their real name must ac-
company the same, otherwise no attention
will be paid to it. "Observer" will please
take notice.

Society of Indiana Florists.

This society was organized at Indian-
apolis, Feb. 23 with a membership of 52,
its objects being "the promotion of flor-
iculture and sociability as an auxiliary to
the national society." Officers were elected
as follows: J. D. Carmody, president;
E. G. Hill, vice-president; Wm. G. Berter-
man, secretary; A. Wiegand, treasurer.
A committee of seven was appointed to
make arrangements for an exhibition to
be given the coming fall.

Renew your subscription through any
of the following agents, or through any
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The Orchid Show at New York.

Messrs. Siebrecht & Wadley have a
right to feel well pleased; they have pre-
sented a novelty to the public, and they
have scored an unqualified success. But
when good judgment and artistic taste
are supplemented by a lavish display of
the rarest plants and flowers, other than
a successful result is an impossibility.

The Eden Musee is well arranged, lend-
ing itself readily to any decoration, and
the mirror-lined winter garden made an
admirable setting for the main exhibi-
tion. The first hall contained a fine
group of the superb specimen palms from
Rose Hill nurseries, varied by pandanus
and the like; a waxen Washington cross-
ed the Delaware at one side, between a tall
cycas and a remarkably fine *Martinezia*
crosa, while specimen latanias and other
palms were displayed around the hall.
The archway between the two halls was
really a work of art. It was draped in
foliage and Florida moss, and hung with
orchids and nepenthes.

In the winter garden, the two sides
were banked in front of the mirrors with
palms and orchids. Near the entrance,
the waxen Japanese family familiar to
habitués of the Musee posed as calmly as
usual in a rustic bower draped with *Lyg-
odium*, clematis, and Florida moss, with
nepenthes hanging above them. The
banks of orchids were most gracefully
arranged in a bed of moss, with fringing
of filmy ferns. At the end opposite the
entrance was a grotto-like recess, massed
with ferns, palms, and foliage plants.
Here and there were trees, draped in moss
and hung with orchids, or palms, bearing
epiphytes swing from their leaf stalks.
In the center of the hall was a large pla-
teau, of orchids, with a fine palm as
center-piece.

Certainly the exhibition appealed
strongly to the orchid fancier, as well as
to the mere lover of beauty. There
were some striking novelties, worthy of
all attention. One of these was a white
cattleya, apparently an albino of *C. Tri-
anae*. It was a beautiful thing, with its
waxy petals and sepals, the lip slightly
stained with gold. It is to leave Rose
Hill nurseries, for Mr. Kimball's collec-
tion at Rochester. Another of Mr. Sie-
brecht's rarities is a new *Helia*, a natural
hybrid, apparently, between *L. autumnalis*
and *L. anceps*.

Cattleya Lawrenceana was another fine
new variety. The representatives of *C. Tri-
anae* were numerous and fine, coming
from most of our orchid fanciers, as well
as from Mr. Siebrecht's. There were fine
spikes of Cattleya amethystoglossa, very
well marked; evidently a good variety.
A few *C. citrina* were shown, but it was
rather early for this species. In number
of varieties shown cattleyas and cyprid-
ipediums appeared to take the lead.

Mr. Corning and Mr. DeWitt Smith
showed some fine cypridipediums, insignif-

being of course the most plentiful. There
were fine blooms of *C. Lawrenceana*,
and *C. Argus*, with its spotted flower; *C. hi-
rissatissimum*, which has rather an un-
canmy look, and many others; over twenty
varieties were represented.

The dendrobiums were fine. But there
was one plant of *D. nobile*, belonging to
Mr. John Bush, which deserves a whole
string of adjectives. Each spike was a
mass of bloom, from top to bottom; the
flowers were finely colored and shapely,
though not specially large. The grower
could not have produced a lovelier plant
if he had built it specially for the occa-
sion. There were spikes of *Phaius iro-
ratus*, that curious cross between *P. grandifolius*
and *Calanthe vestita*, which is
very rare.

The odontoglossums were for the most
part fine, *O. Rossii majus*, *O. crispum*
roseum and *O. Alexandre*, especially so.
Cymbidium eburneum and *C. Lowianum*
were noticeable; the former was especial-
ly fine.

The *masdevallias*, *schoenburghias*,
and *scutellarias* were viewed with some
amusement by the unbotanical public,
who appeared to regard them rather as a
horticultural joke. But the oddest thing
in the entire exhibition was not an orchid,
but *Strelitzia augusta*, of which some
flowers were displayed. This flower is
very rarely seen, and is unknown to
many. Its green spathe is boat-shaped,
and may be lucidly described as resem-
bling the model of a Roman galley, enclos-
ing a cream-colored cuttle-fish in a highly
excited condition.

Whittle Bros., of Albany, showed some
very fine cut flowers, and Mr. Kimball's
display was superb. Mr. Hunewell, of
Boston, was well represented, and there
were some fine cypridipediums and other
flowers from the Harvard Botanic garden,
showing that Mr. Manda goes in for
something besides the weedy specimens
that populate most botanic gardens.

The intention of making this simply
an orchid show prevented the entry of
many other flowers, but of course there
was a new rose; a flower show without
one would be a performance of "Hamlet"
with the part of "Hamlet" left out. And
the newcomer is a wonder, too. It is a
down-easter, the originator being Mr.
Cumley, gardener to Mrs. F. B. Hayes,
at "Oakmont," Lexington, Mass.

The new rose is a hybrid tea, the
parents being Baroness Rothschild and
President. The flowers were very large,
and shaped like an hybrid remontant;
the color is very like Paul Neyron, which
it resembles in the smooth, globular form
of petals, but it has a somewhat silvery
tint. The foliage is very vigorous, and it
certainly does not look like a tea, though
it has the characteristic odor very strong-
ly. No buds were shown, but Mr. Cum-
ley says it is the usual conical tea form,
when in this condition. Mr. Cumley has

been perfecting the flower for five years, so he can speak of its merits with confidence. It will probably be shown again in New York shortly; it is as yet unnamed, but will very likely be called "Oakmont," after its birthplace.

Mr Norton, of Boston, displayed some Cornelia Cooks, of wondrous size; they were bigger than Beauties and exquisitely tinted. He seems to excel all competitors with this flower. Mr. John Henderson showed a fine bunch of Papi Gontier.

A dinner table was simply but exquisitely arranged by Louis Sherry. In the center was a mound of adiantums, with candelabums and other orchid flowers nestled gracefully among the fronds. The favors were candelabums and cecylogues. A single flower of D. noble seems to have been the correct boutonniere during the show, while cecylogue has been in high favor for the corsage.

The display of nepepesthes was very good, in addition to established varieties Siehrich & Walley are the possessors of a lot of new seedlings, many of them very promising infants.

It would be impossible for us to give all the credit deserved to this affair, unless the AMERICAN FLORIST sent out an Orchid Exhibition Special. It was a colossal success, and if it doesn't give a tremendous boom to the orchid trade, why, appearances are mighty deceitful.

EMILY LOUISE TAYLOR.

A Veteran Plantsmen.

MR. LOUIS MENAND.

In every profession, and in every business, there are a few men whose lives can be held up as examples to the younger generation. Men that have conquered apparently insurmountable difficulties, and who have reached positions of eminence, are ever beacon lights to the struggling and obscure, and showing by their success the rewards of perseverance.

Of the prominent horticulturists belonging to this country not one is better known than Mr. Louis Menand of Albany. True, of later years, his name has not been so often before the floral world, and, consequently, many just beginning the business of a florist know little or nothing of him.

It is the purport of this article to call the attention of our more youthful brethren to one so worthy of emulation, and to relate a few facts concerning him which, if applied, may be of lasting benefit to those who are striving to reach the front. It is a living exemplification of what hard work may accomplish, teaching us all that without concentrated and steady effort no success will ever be achieved.

It seems fitting that in the pages of this paper, which so aptly represents the present school of floriculture, and which promises to be the florists' paper of the future, that some tribute should be paid to one who has done so much for his profession in the past; not only by his successful culture of plants, showing how well he understands their requirements, and thus teaching and educating others, but, also, by his enthusiastic love of every kind of plant, has done much to arouse and develop in the minds of those with whom he comes in contact a taste for the same studies and a desire to be occupied in them.

Mr. Menand was born in France, in the year 1807; therefore in August of this year he will have completed his 80th year. Doubtless many who are acquainted with him and know of his great

activity and youthful enthusiasm for all that interests his inquiring mind, will be surprised at this statement as to his age. He is a marvel of vigor, being more alert than many a man at 60; each day finds him busy tending some of his pets, and he still directs the varied interests of his business.

He left France for America in 1840, at the age of 33 years. To listen to the account, from his own lips, of his early manhood and the hard and laborious study in which he cheerfully engaged, is exceedingly interesting. During these days, without a teacher, he gained a thorough knowledge of Latin and Greek; and at the same time attended zealously to the improvement of his experience in all branches of gardening. Botany also was mastered. This steady application in acquiring an education should teach all young men what can be done by perseverance.

Landing in New York, he was soon engaged by Mr. Thorburn to direct a body of men in laying out his garden. Though not sufficiently acquainted with the English language to give his orders verbally, yet, as he says, he was well versed in the use of all gardening implements, and so was enabled to give his instructions by means of objects, perhaps the best of all methods of teaching. After staying in New York for a short time, he changed his residence to Albany and commenced the business of which he is still the head. One is able in some degree to appreciate the difficulties which had to be overcome in those days when informed that the new business, during the first ten months of its existence, only realized \$14 from its sales.

It is a delightful treat, to all lovers of plants, to spend a few hours in Mr. Menand's company, to listen to his conversation and to inspect the extensive collection of choice plants which he has made. In nomenclature he is exceedingly well posted, as there are but few plants which he is unable to name at sight. Mr. Menand possesses a large number of orchids, many of which are rare and well-grown specimens. It is that was owned originally the plant of Vanda Cornigii, which was sold at auction by Mr. Geo. Tweedle and purchased by Mr. Chatfield for \$250. This plant with its descendants, five in all, has proved quite a gold mine, the aggregate sum realized from their sale amounting to nearly \$800. A plant of *Pteris caudata* is probably one of the largest in the country. Upon two spikes over 100 plants were counted, many of the culture of cecylogues and cymbidiums. Mr. Menand is also very successful. One plant of *Cymbidium Lowianum*, which was obtained from him by Mr. Smith, of Troy, has this year fifteen spikes of flowers upon it. Two fine plants of *Angraecum eburneum* and *A. sesquipedale* are also noticeable. Of palms there is quite a handsome collection, and many scarce species are to be seen in their luxuriant growth and healthy foliage attesting the ability of the grower. Here also is to be found a unique lot of cacti and other succulents. Of this class of plants Mr. Menand appears to be passionately fond, and he has some which probably could not be duplicated in this country.

It is impossible to enumerate within the limits of this article all the curious, choice, and rare plants which find a home in these greenhouses. Those who love plants and do not look upon them solely with reference to the amount of money that can be made from them, but

who delight to behold the flower of every clime, would find themselves well repaid by a visit, and they may be sure that a hearty welcome will be extended to all who appreciate the beautiful.

In this present time competition is so keen that it is only by skill combined with good judgment in the selection and cultivation of the plants we grow that a florist's business can be conducted upon a paying basis. We who have this object in view must, therefore, study carefully what the market demands, and then avail ourselves of all our resources to meet this demand to the best of our ability. Our operations, to be remunerative, must be conducted as those of manufacturing are. The article to be sold should be manufactured or grown at the lowest possible cost, and this can only be accomplished by handling it in large quantities and in a systematic way.

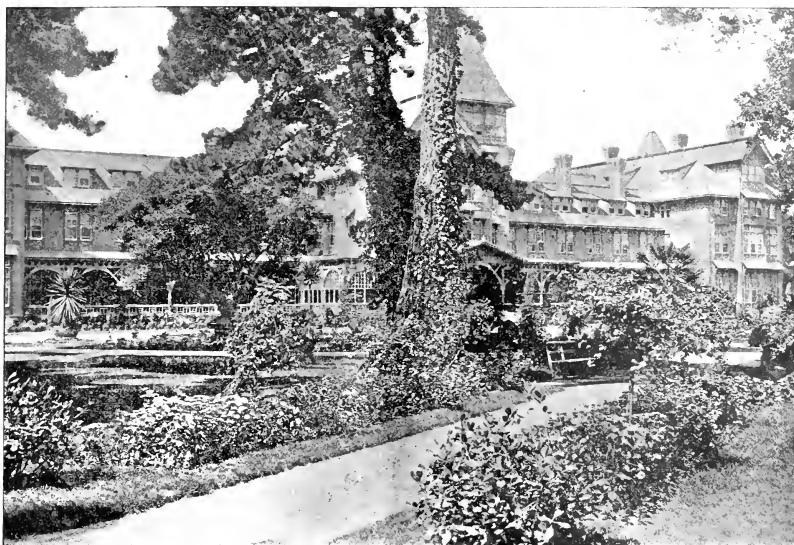
Mr. Menand is a type of the best of the gardeners of the past years. The market for cut flowers was not then an extensive one, but there was a steady demand for fine plants, and to supply this trade he was fully equal. Now the times are changed, and it is peculiarly successful we must adapt our plans to these times and arrange for our products accordingly. Yet it is a source of some pleasure to many to find a man with so sincere a love for nature's children, and who still adheres to this love in spite of the many inducements to enter newer and perhaps more lucrative paths.

Capitalization of Botanical Names.

Some difference of opinion as to the proper use of capitals in botanical and common plant names having been expressed by a number of the FLORIST's readers Mr. W. J. Stewart, of Boston, has secured from Prof. Asa Gray of Harvard university, undoubtedly the best authority on botanical matters in this country, the following valuable notes in regard to this subject. Prof. Gray says:

About certain things all botanical authorities agree; for instance, names of genera should be written with a capital initial. Names of species should not unless they are substantives and proper names or adjectives, which are names of countries or places, such as for example, *Clematis Virginiana*. And usage varies in this respect: Except in England and the United States it is getting common to drop the capital in geographical names and to write *Clematis Virginiana*. There is no law about this, only taste and usage.

As to the orthography of plant names, we should in the first place distinguish between botanical names and popular names. No botanist writing in the English or Latin language would ever write the name of a genus, say *Rosa* or *Begonia*, without a capital initial letter. But if anyone is writing generally about roses or begonias, or phloxes, or such names which you use as English plurals, it is simply a matter of taste and usage whether to use a capital or small initial. There is a strong tendency to the latter, and I see no harm in it. I do not fall into that custom in my books, partly for this reason: When I write *Strawberry*, *Flax*, and *Wheat*, I mean the plant so-called; and when I write *strawberry*, *flax* or *wheat*, I refer to the fruit, fibre, or grain, and when I write *rose* I mean the flower, not the plant. This I find convenient and useful. But the common usage seems to me perfectly proper, i. e., that of writ-



HOTEL DEL MONTE, MONTEREY, CALIF.

ing elm, pear, maple, etc., and even spruce, magnolia, calceolaria, yucca, especially when you use them in the plural, i. e. magnolias, calceolarias, yuccas, for they are thus made into common names. But I could never write the botanical names *Magnolia glauca* or *Yucca filamentosa* without the capital initial to the generic name.

The other matter you ask about—that is, about the termination of personal specific names in the genitive, whether in *i* or *ii*, is not to be settled by an off-hand rule. In the case you mention, we should certainly write *Veitchii*, not *Veitchi*, because Mr. Veitch's name would be Latinized *Veitchius*, not *Veichus*, for reasons of euphony, and so the genitive would be *Veitchii*. On the other hand such names as *Palmer* would Latinize in *Palmerus*, genitive, *Palmeri*, while that of *Drummond* leaves little or nothing to choose between *Drummondii* and *Drummondi*.

Jan. 20, 1887.

Hotel del Monte.

Some years since a syndicate of capitalists projected an enterprise at Monterey, Cal., which has resulted in one of the most wonderful gardens in the world. We refer to the erection of the Hotel del Monte, and the laying out of hundreds of acres of surrounding grounds into the famous "Arizona gardens," under the direction of Mr. R. Ullrich, a landscape gardener of marked ability and originality. Favored by a climate which permits the use of a great variety of plants, ranging from strictly tropical to temper-

ate in nature, the facilities for producing beautiful horticultural effects were of course great, and Mr. Ullrich has certainly utilized them to advantage.

We intend publishing a series of views taken in these gardens, and give above the first, a view of the hotel, with a small portion of the grounds in the foreground.

Express Rates.

Now that the shipping business is at its height, many complaints are heard of the excessive rates charged by the express companies for transporting plants.

If the subject were properly put to the managers of the express companies, we doubt not but a lower rate for plants might be obtained; but this would take concerted and intelligent action, backed by arguments that could not be refuted. Plants, in and of themselves, weigh very little, but the soil that invariably attaches and goes with the plants is what makes the weight. The fish men are allowed a rebate, or rather no charge is made for the transportation of the ice so necessary for the preservation of fresh fish in transit; ice in the case of fish is no more a necessity than soil is to plants, and this point should be clearly stated in any argument with the express managers.

If the S. A. F. would take the matter up, and through its officers, or by an appointed committee, present the florists' side of the plant transportation question, possibly good might come of it. It is certainly worth a trial.

Another phase, and a strong one, is the undoubted increase that would follow in the expressage of plants if a more liberal

policy were pursued by the companies. This is a matter affecting all alike, for it is not only the shippers who suffer but those who purchase plants and pay the bills. Let us agitate in a business-like, gentlemanly manner, and see if something cannot be done to lighten the charges for plant transportation.

E. G. HILL.

Boston.

Business has fallen off very decidedly since Lent came in.

The Gardeners' and Florists' club held their monthly meeting on Friday, March 4. There was a full attendance. Interesting remarks in reference to "Hot water under pressure" were made by L. H. Foster, A. P. Calder, and others.

The magnificent collection of azaleas belonging to the late Hon. Marshall P. Wilder has been secured by Mr. Jas. R. Pletcher, of Montview, Short Hills, N. J. Mr. Pletcher will build a new house specially for the accommodation of this collection. He was also the purchaser of a number of splendid *Camellia* plants from the same collection, one of the finest of these being a magnificent specimen of "*Mrs. Abby Wilder*," about fifteen feet high.

The spring exhibition of the Massachusetts Horticultural society will take place on March 23, 24 and 25. Prizes amounting to over \$7000 are offered for spring-flowering bulbs, orchids, roses, azaleas, etc. also nine medals for lily cuths, tulips, and narcissi, which are offered by the General Union of H. B. and

W. J. S.

Orchids for Cut Flowers.

BY F. G.

I.



I am glad to see A. E. W. opening the question as to whether it will pay a florist to grow orchid flowers for sale. Orchids are becoming such a rage in this country that florists are buying very largely, and in some instances are building special houses to suit the requirements of the different genera. That these people must believe that there is money in them is certain, and more flowers can be sold even at the present high prices. To create a larger demand for these they must be sold at more reasonable rates; but to do this the grower must be able to buy cheaply and only those that have proved to be good growers and give the largest returns for the room occupied. Thousands of dollars are spent every year in buying orchids that are absolutely worthless to a florist, either through ignorance of their real character, or from the erroneous idea many have that an orchid must be better than other plants. There are probably more weeds in the orchideae than any other popular family of phanerogamae.

I feel sure it would be very interesting to the majority of the readers of the FLORIST, and useful to intending buyers of orchids, if some of our veteran orchid growers could be induced to give the results of their many years of experience, and their candid opinion as to the best varieties to grow for cut flowers, coupled with a few hints as to the best method of growing them. From my own experience I would limit the number to about a dozen species. An orchid, to be of use to a florist, should flower between November and May. For this reason I must disagree with A. E. W. as to the merits of Cattleya Mossiae, as it seldom opens its flowers before the middle of May, and often much later. The best cattleya I think is Trianae with its legion of varieties. During the last few years this has been within the reach of all, good plants having been sold at auction as low as \$10 per 100. It is the easiest to grow of the whole genus, and its flowers are among the largest and showiest. It can be grown in any ordinary plant house, or, tied to blocks, can be hung up in a rose house that is somewhat shaded in summer. Water should be freely given during the growing season, and it needs more water in winter than the majority of cattleyas. Use as little soil as possible, as then you can give abundance of water overhead, and this is what keeps them clean.

Among the dendrobies the best is probably Wardianum, though the old noble

is good and would pay; the former can now be bought in quantities very cheap, and I would guarantee them to double the first investment the first season, if properly handled. I like as small a pot or basket as possible and very little potting material. During the growing season it requires a brisk, moist heat, with abundance of water, preferably overhead. As soon as the growths are matured, put it in a cooler house with abundance of air and gradually withhold water until leaves have dropped, after which they need scarcely any water, and can be forced into flower gradually, as soon as the buds are well broken through the skin. It often happens that a bulb will mature and start again in midsummer; in this case it is best to grow it on as briskly as possible, and if properly ripened the second bulb will flower and sometimes both. The culture may be summed up in a few words: get as long growths as possible, ripen thoroughly, and do not force them before the buds are well through the skin. Cypripedium insignis is too well known to need comment, but this will produce more flowers when not overpotted.

Laelia anceps is another good orchid, and has been imported in large quantities lately. It will give two to five flowers on a spike and lasts about six weeks. The easiest way to grow them is to wire them to blocks of wood and hang in a light house where they can have abundance of air and be constantly hosed during the growing season. If well ripened a minimum of 45° will suit them in the resting season, and then can be put in a warmer house as needed for flowers. Its congener, L. albida, I would also recommend. It requires a similar treatment to the preceding, but may be given the sunniest part of the house.

Cyclopis Skinneri is another fine Mexican orchid that will well repay a florist. These are sold very cheap at times, and when well grown will produce four to eight flowers per growth; these can be sold wholesale at \$2.00 per dozen. They are no more trouble to grow than a geranium. Give them small pots as possible, well drained, light, open soil—probably a mixture of peat and moss is the best—and do not shade too heavy; give abundance of air whenever possible; do not re pot until the plants are too big for the pot, and this applies to all orchids. Give them abundance of water, generally overhead. I do not think it advisable to dry them at any season.

Calanthes Veitchii and vestita can be made to pay well, and are so easily propagated that a large stock can soon be raised from a few plants. Put them in rich open soil in well drained pots, give very little water until the bulbs begin to form, and after this they require the same treatment as a crocus. Weak manure water regularly given will be found of great assistance. The merits of Celoglyne cristata A. E. W. has well advocated. To flower this properly the bulbs must be thoroughly ripened by exposing the plants to abundance of air and sunlight. The big fat bulbs do not by any means give the most flowers.

I differ from A. E. W. in recommending Phaius maculata, even if it produced an adequate number of flowers in proportion to room taken, which it does not—the flowers are as bad as a camel's hind handle, turning black almost at the least touch. Phaius grandifolius when well grown will give good returns, but for some reason it does not "take." Its congener, P. Wallichii, is more popular. I would not recommend mixing cow ma-

nure with the soil, as it tends to sour it, and its goodness is washed away with repeated watering, long before the new bulbs push roots. A top dressing of manure when needed is better, or manure given in a liquid state.

Among the so-called cool orchids Odontoglossum crispum and O. Pescatorei are the most useful. These require a different treatment from the general run of orchids in needing a house with a north aspect; abundance of light, but no sun whatever suits them best. Under proper conditions these two are undoubtedly the easiest to grow of the orchideae, and are the least trouble, the same treatment suiting them all the year round, and when flourishing will usually flower three times in two years; a minimum temperature of 55° and maximum of 65° when possible all the year round suits them. Give all the care possible consistent with these temperatures, but in very hot weather too much air is not advisable; a shading raised about eighteen inches from the glass during the summer allows the air to circulate between it and the glass and tends to keep the latter cool. In potting I think it best to fill the pot within an inch of the top with broken crocks; use small pots and equal proportions of peat and moss, and pot firmly. They will need top-dressing probably once a year, and repotting every three or four years. They need water overhead every day regardless of weather, and should never approach dryness at any time. This is necessary on account of hot weather in summer, and heavy firing in winter. A good syringe overhead at midnight on cold nights will be beneficial. If the greatest enemies of the plants—thrips—should get in, the quickest way to eradicate them is to give the house a good steaming by syringing tobacco-water on the pipes; two or three applications of this will soon clear the house of thrips.

Orchids.

BY BENJ. GREY.

Many are prevented from growing this class of plants from an impression that their cultivation is difficult; this is a great mistake. A house of orchids, consisting of cattleyas, laelias, lycastes, several of the dendrobiums, Celoglyne cristata, cypripediums, Calanthe Veitchii, and vestita, oncidiums, Odontoglossum Alexandrie, and pascatorum, and a few others suitable for cutting for market, may be grown almost as easily as a house of roses.

The house should face east and west, to avoid the direct rays of the sun, thereby making a heavy shade in winter unnecessary; and allowing frequent syringings and plenty of air, which will keep the plants clean and healthy. I give my orchids the full sun during the winter months; start with a light shade about the last of February, giving a heavier one about a month later, which usually lasts until late in summer, when another light coating may be necessary to carry them through until the dull November days strike us. I use air-slaked lime, one or two 6-inch pots full to a pail of water—according to the shade needed—using only the pasty part after the grit has settled to the bottom, and find that it sticks better than fresh slaked, and does not destroy the plant. This is cheap, more easily applied than lead and turpentine, and as a somewhat heavy shade is required for spring and summer, comes off more readily for winter. Most orchid growers give too much shade; and especially was this the case a few years ago.



CATTLEYA TRIANA

Reproduced from London Garden

I am satisfied from several years' observation that to give the best flowering results orchids need plenty of sun; in fact, nearly all they can get without actually burning the leaves; in proof of this I have a batch of *Odontoglossum citrosum*, which as an experiment I hung up on blocks in the sunniest part of the house three years ago, and they have never failed to give a fine crop of blooms. *Odontoglossum Alexandria* and *O. Pescatorei*, as they like a cool, moist atmosphere, should be grown in the coolest and shadiest end of the house; they will do well in a temperature of 55° at night, with frequent syringings; they should never be dry in fact.

I think no orchids—with rare exceptions—should ever be kept thoroughly dry; at least, not enough to shrivel the bulbs; this is especially so with American orchids and all cypripediums. The pot plants may be looked over first with the watering pot to catch an occasional one getting too dry; and then the whole house may be syringed over with the hose; increasing the fire heat a few degrees during the dull weather, so that the plants will not get chilled by the water remaining on them too long. I have used the hose for nearly twenty years in orchid growing, and have never noticed any bad effect; and find frequent syringings, and a liberal supply of fresh air, with a little fire heat when necessary, conducive to a healthy condition of the plants; and doing away with the labor of continually sponging for the removal of insects, and dipping the plants; which, with

the florist who grows orchids for profit, are matters of important consideration. Malden, Mass.

The Marguerite Fly.

(*Phytomyza affinis*.)

Another insect enemy! This little pest made its first appearance here last November. Before then I was not aware of its presence in the country, but since then I find that it is as abundant in greenhouses at Glen Cove landing and at Hinsdale as it is here. I first observed its presence by noticing some little wart-like specks and irregular, whitish, lime-like markings on the leaves of some of the marguerites, and these traces soon multiplied exceedingly and the much-afflicted leaves withered up and died. The fly is a small insect and might readily be mistaken for one of the little flies so abundant about fermenting horse-manure. When disturbed it "hops" about rather lazily or flies from one branch to another, but seldom flies away more than a few feet. It lays its eggs singly under the skin of the leaf, the wart-like specks form over the eggs. In a few days' time little white grubs are hatched; these are the evil-workers. They devour the fleshy substance between the skins of the leaf, eating their way in irregular lines or broad patches, and these are the whitish markings observable on the surface of the leaf. After two weeks' energetic eating it thrusts its head outside of the skin of the leaf and pupates. From the laying of the egg till

the perfect fly issues from the chrysalis is within five weeks. I conclude this to be the case from some clean cinerarias which I brought into the greenhouse in which the marguerites were growing, and the leaves of which at the end of five weeks not only contained eggs, larvae and pupae, but also empty chrysalis shells. The work of increase appears to proceed incessantly.

Although the marguerite seems to be its favorite food, it does not at all restrict itself to this plant, but attacks every other composite plant within its reach. Judging from its behavior here it even prefers the double white feverfew to the marguerite. It has also attacked eupatoriums, gazanias, Helianthus multiflorus, and, as I mentioned above, cinerarias. These, at present, are about all the composites within its reach. I have not observed it on any other order of plants.

Although this is the first time it has ever come under my own personal observation, I have read of it as a pest in European gardens for some ten years past. At first it was called the marguerite leaf-miner, but more recently it is known as the marguerite daisy fly.

The remedy? I have gathered together every plant on or about the place affected by this fly and burned them. A florist at Hinsdale set to early in winter and picked off every diseased leaf, and now his plants have pretty well recovered the shock from the defoliation, and are in fair shape to give him good bloom for Easter. European authorities advise us to destroy the eggs and grubs by bruising them between our fingers. This may be very well in a small way, but where plants are grown in quantity, and time is valuable, I am convinced that nothing short of beginning in time and stripping off and burning the diseased leaves will suffice. The flies don't mind tobacco smoke. Pyrethrum powder dusted into the atmosphere about the plants seems to disturb them, but more than that I cannot say that it affects them any. An eminent entomologist suggests that "vessels of diluted molasses and vinegar be placed in the greenhouse, near the plants infected, and see if the flies can be drawn to that and caught and drowned before they begin the oviposition on the leaves."

It is bad enough to have our marguerites and cinerarias destroyed in the greenhouses in the winter, but if the insect continues its multiplication and mischief outside throughout the summer months, our gardens must suffer extremely. Aster, marigolds, chrysanthemums, dahlias, zinnias, feverfew, everlastings, and hosts of other showy composites will be apt to be very much injured.

Glen Cove, N. Y. WM. FAICOMER.

CYPRIPIEDUM SPECTABILE.—Some beautiful blooms of this charming native cypripedium are sent us by R. Mann & Son, Lansing, Mich., who state that it is very readily and cheaply forced into bloom under glass during winter. As the demand for all orchids is rapidly growing, would it not pay to devote a corner to this plant for cut flowers in winter?

POLYGONUM PLATYCAULA.—This plant is commonly known in America as *Coccoloba platyclada*, which is incorrect. A recent note in the FLORIST on above plant suggested that the error should be corrected. The *Coccoloba* are tropical plants, bearing leaves from ten inches to two feet across, and are totally different from the little *Polygonum* which has been bearing their name.

GEO. WITTHOLD

The Progress of Commercial Floriculture.

BY W. J. STEWART.

Read before the Mass. Hort. Society, March 12.

The whole history of commercial floriculture in this country is progress. Progress so rapid and so remarkable that it seems almost incredible. What is commercial floriculture? What is a florist? So great has been the development of all lines of business connected with the introduction, culture, and sale of floral productions, that our language even has not kept pace with the business, and so we find a great combination of industries for which we have no distinctive or generally accepted names. Thirty years ago, when one spoke of a gardener, or a florist, every one knew what was meant. What is a gardener now? Who are the florists? I am sure that if I were to confine this essay to a narration, merely of the progress in the culture of flowers for commercial purposes, I would not be fulfilling the duty expected by your committee. They desire also to hear something about the great modern markets, where cut flowers are distributed, arranged and sold, and which a few years ago did not exist. But what have these places to do with floriculture? Many of those employed in them, never potted a plant, never syringed a house many of them know as little of the details required to perfect the flowers they sell, as they do of the manufacture of the wire and tinfoil they use, or the baskets they fill, yet they occupy an important place, in the history of floriculture of today. The little industry which forty years ago was only in the embryo state has during the past twenty years made such strides, and the present rate of growth is so great, that it looks as though the future will have to coin new words if it will keep up with the florist trade.

The commercial idea, this trading in cut flowers by the dozen or hundred, I am well aware is an unwelcome subject to some well-meaning people. I recall a conversation with a gentleman, well known, and whose family a botanist is known world-wide, in which he made some inquiries regarding my employment, and I shall never forget the look of disgust which overspread his face as he said, "Yes, yes, peddle them out so much a barrel, just as you would potatoes." There are doubtless many people who agree with him; they grow a flower for itself, they say, and not for its value in dollars and cents, but here do our most beautiful flowers, our most luscious fruits come from, and whom shall we thank for them? They are in many cases no doubt primarily the result of the labors and studies of men who have done the work for the love of it alone, but if it had not been for that ever present and all powerful element in human nature, the desire for gain, and the energy and enterprise begotten of business methods, these prized results of love's labor would have stayed in a spot where they first saw the light, in the possession only of their originator or his immediate friends, and the millions who have enjoyed them had never known that pleasure.

In these latter years, however, some of our most earnest students of plant life, and of methods of fertilization and propagation, those who are striving hardest to discover or to produce new varieties are not amateurs, are not enthusiasts solely for the love of the work, but also because they know the value in hard cash of anything meritorious. The spirit which has spanned the continent with

railways and covered it with a maze of telegraph wires; which lines our streets with magnificent buildings and tasteful stores, and which has thrown the treasures of the whole world at our feet, is the same identical spirit which animates and spurs on our great hybridizers and rosarians, and which ransacks every corner of the earth, braving the dangers of the wilderness and the pestilence of the tropics in the great quest for something new or rare.

The florist of a generation ago was in most cases a rather humble and obscure individual. He was generally a man who was employed by one or several parties to keep their grounds in order, and occupying as he did a station socially about on a plane with the coachman and hostler, he was expected to be as expert at milking the cow, and wheeling out the ashes, as he was at tying bouquets. His hot-houses were of the crudest pattern, small, inconvenient, poorly heated, and set with but little regard to fitness of location or aspect. Our modern devices for heating, ventilating and propagating, were unknown to him, and he was as innocent as a child regarding the much-discussed questions of the comparative merits of hot water and steam, theories of circulation and radiation, and many other problems that interest his more fortunate brother of the present day. His stock of plants was more of a museum than anything else, and occasionally it was mainly a hospital. The hospitals, in some instances, are unfortunately still to be found. His bouquets, if we could see them now, would be regarded as curiosities, with a stick in the middle to keep them straight, and the flowers wound on as tightly as they could be packed together, they were indeed marvels of workmanship. About the only designs attempted, besides bouquets, were wreaths and a few crosses; these were fastened on sticks or hoops. His customers were just as simple as himself, and the whole cut-flower trade of Boston probably would not have sufficed to keep one of our modern flower-shops going. Most of us can remember the time when about the only flowers which could be bought in this city were a few stiffly-made bouquets, which were brought to town every morning and offered for sale in the windows of some provision dealer or druggist. What a contrast with the condition of the flower business of to-day! There are plenty of men engaged in it, who in general intelligence, education and refinement, are the equals of those in any other line of trade, and it is rapidly becoming a business of vast importance with a large amount of money invested, with its wholesalers, commission dealers, supply dealers, importers, jobbers and retailers. It is no longer in the experimental stage, and cannot be successfully conducted at random or by guesswork. Competition and increased investments of capital have brought prices down as low as possible, and the man who does not manage his business carefully and systematically stands but a poor chance to succeed. Foresight, energy and brains are what tell in the flower trade of to day, and there is room in it yet for more men who are blessed with these requisites. The man who raises the best flowers in the market of any variety is always pretty sure of good sales and good prices. With such perishable articles, which cannot be produced at will, there will always occur seasons of glut, and at such times it is the man that offers the inferior stock who must go to the wall first.

The tendency of those growing flowers for the market now-a-days, is toward specialties. It is certainly better for a man to grow two or three things well and gain a reputation for those specialties than to produce a little of everything indifferently. Most rose growers now limit themselves to a few varieties, which for one reason or another they regard as the most profitable, and the best success is attained where each variety has a separate house. The number of varieties of roses, which may be considered as staple, since they are quoted at wholesale in most of the large markets in this country, is about twenty-five, as follows: Bon Silene, Safrano, Isabella Sprunt, Niphetos, Perle des Jardins, Sunset, Papa Goutier, Souvenir d'un Amie, Mad. Cusin, Souvenir de Malmaison, Marechal Niel, Cornelia Cook, Wm. Fr. Bennett, Pierre Guillot, Bride, Catherine Mermet, American Beauty, Gen. Jacq., La France, Baroness Rothschild, Gabrielle Luizet, Magna Charta, Anna de Diesbach and Duke of Connaught. Other varieties which are grown for the market, but less generally, are Benglas, Duchess of Edinburgh, Yellow Tea, Royal Tea, Lamarque, Reine Marie Henriette, Climbing Devonians, Boule de Neige, and an assortment of hybrid perpetuals, which are forced for winter consumption. The most desirable points in a market rose, are continuous and abundant blooming, long stems bearing single buds, robust foliage with fragrance, clear color and good keeping qualities in the flower. Quite a large proportion of the roses grown about Boston, are shipped to New England points, Canada, and the West. The shipping trade has grown to be a very important item, and is the outlet through which our surplus finds its way, and which keeps prices at a fair limit. There is no doubt that during the greater portion of the year there are more roses grown about Boston than it would be possible to consume here, and if the shipping trade were to cease we would be swamped and prices would at once fall far below the cost of production, bringing ruin to many.

The popularity of the rose seems not to diminish, and probably will not as long as a demand for novelties is supplied by new varieties. Every year brings forth fresh candidates for popular favor, most of them from the other side of the water, but the proportion of really successful ones is small as compared with the number sent out. The conditions under which a rose is forced for market in this country are so different from those under which it is raised and grown abroad, that roses whose appearance has at first given great promise, have proved utter failures in this country, causing much financial sorrow for those who invested in them.

The carnation has taken a fresh hold upon popular fancy within two or three years, and deservedly so, for the new kinds which have been introduced recently are in many respects great improvements upon the old varieties. To be valuable for the carnation must produce its flowers on sturdy stems, and they can be cut long. The florists must be distinct in color, large and full in form, and not inclined to burst at the calyx. The violet is a popular flower the world over. The only variety which is generally salable here is the Marie Louise, and this is subject to a disease which has baffled the most experienced violet growers, and forced many to give up its culture. The result is that those whose plants have escaped the scourge have reaped a profitable return during the last two years. It is a singular fact that in



DINNER TABLE DESIGN.

Philadelphia a single violet is the most popular, while here it cannot be sold.

After roses, carnations and violets, the flowers most extensively grown for the market are those produced from bulbs and tubers, such as lily of the valley, Roman hyacinths, tulips, daffodils, and lilies of several kinds. Dutch hyacinths which were so much sought after formerly, are now positively unsalable. Who would have believed it possible a few years ago that lilies of the valley could be produced the whole year round? Yet it is true, that there is not a day in the year when this flower cannot be supplied in quantity. Other flowers which may be considered as staple, being regularly quoted in the wholesale market, are narcissi of several kinds, freesia, bouvardia, mignonette, callas, camellias, myrsotis, lilacs, pansies, smilax and ferns; also some kinds whose sale is limited to certain seasons, such as sweet peas, asters chrysanthemums and gladioli.

Continued in next issue.

Floral Table Design.

The accompanying handsome illustration accurately represents a unique design made by the B. A. Elliott Co., of Pittsburgh, and exhibited at their floral exhibition in that city a few years since. The dish was made of white carnations with a section of white pansies. The belly of the fish was of variegated vinca leaves and the back of green ones; the head, fins and tail were made from palm leaves, and the eye was a Paris daisy with the petals partially trimmed off. The dish was decorated on one side with a bunch of purple pansies tied with a white ribbon; the opposite side with a Mabel Morrison rose, two or three moss roses, and a bunch each of lilies of the valley and Paris daisies.

PANDANUS VEITCHII is a most useful ornamental plant. It is easily propagated by suckers and grows rapidly. It should be found in all collections of plants used for room decoration, to give relief to the deep green of palms. M.

Bennett and American Beauty.

My experience with the Bennett has not been quite satisfactory. I admire its style of bud, its color, and the manner in which it will retain its color, even under circumstances injurious to the color of some other varieties, such as Pierre Guillot, but I have found it so prone to black spot and red spider that I have lost much of my original esteem for it. Liberal applications of cold water will of course keep the spider in check, but I have yet to learn of an effective remedy for black spot. An European scientist recommends hand-picking and the immediate burning of the leaves, but this is a remedy I have not yet found time to test. A year or two ago, by way of experiment, I potted up a couple of Bennetts, using the usual compost for one, but adding a little sulphur and lime to the soil for the other; they remained side by side for about three months, the doctored plant showing little sign of spot, although the other was constantly frescoed; they were subsequently planted on the benches with other Bennetts. I tried the lime and sulphur in planting, and for months afterwards I applied it in various forms, also using every other remedy coming under my notice, but I signally failed to reduce my crop of spot.

As to the Beauty, well I'm perfectly in love with her. I think she's "just too sweet," and remarkably free from the many ills to which roses are heir. I am little troubled with mildew, spot, or spider, and the Beauty appears to carry less blind wood than any other variety I know of. Late last fall I planted a few very small plants on the benches; they have not made any 8 or 10 foot canes in the meantime, few shoots now being over a foot long, yet I have cut some very fair buds, one bloom which I cut lately being four inches in diameter; with me it seems, too, as best in a good, stiff soil, and fed very sparingly, if at all. I give a little liquid manure about the time buds are developing, but with this exception I feed it less than any rose I ever

handled; I find also that it enjoys a comparatively cool atmosphere. I am raising a few young plants which I intend to force as hybrid perpetuals next season, but grown in the usual way; and with the proper care and attention I can see no reason, judging from my own experience, why American Beauty should not prove a profitable rose to the commercial grower. "There's nothing succeeds like success," and the grower who succeeds in taking out of American Beauty all that is in it will not need to bother much with the Bennett.

Springfield, Md.

A. W. M.

Hybrid Roses in Pots after Blooming.

If A. M. P. has a cool house facing north it is as good as any; it will be better if no heat at all is used. He can place the plants in it, keep them watered when they require it, fumigate when green fly shows itself, and in April, or as soon as very severe weather is over, they can be examined, and where necessary, repotted; then place them out of doors for the summer. A 12-inch pot is a most unwieldy size to grow a hybrid in, and unless the plant is extraordinarily large there is no possible need of it; a 10-inch pot is as large as they need when four or five years old.

The treatment with which I have succeeded best for several years has been to place the plants as soon as through blooming—generally my first plants are ready at New Years—in a north-side house about six feet wide with a good bed of ashes on the floor; on this I stand the plants as thick as the foliage will allow, water as soon as put in, and continue watering when necessary. Here they stand without a particle of sun or fire heat till about the end of March, when the sun will begin to warm the house a little during the middle of the day. During all this time, except during very severe weather (when I frequently get 12° to 15° of frost in the house, yet it does no harm), they will keep steadily growing and by April 1 the new growth is generally two feet long. I now give plenty of air every day in mild weather, and by the end of the month or the first week in May I turn them all out-doors into their summer quarters and grow them on in the usual way till August.

Anyone having surplus plants of any good varieties that have been forced during early winter and treated this way, if planted out in open ground during mild weather in April or first of May can have a fine crop of flowers eight to ten days earlier than from the plants which have been out all winter. The cool-house treatment gives the plants a partial rest (though if treated right they never lose a leaf) which never fails with me to produce a fine crop of flowers as above described. Of course, if the plants are to be grown on in pots for the next winter's work it is best to pick this crop of buds off before they begin to open. The most important thing to guard against is allowing a severe snap to catch the plants dry; should such occur the plants suffer severely. J. N. M.

WHAT AGE and size of monthly or everblooming roses will yield the best results for bedding purposes in the latitude of Minnesota, where the summers are short and the plants can only be kept the one season? If any of your correspondents will give their views on this matter it will confer a favor.

Winona, Minn. A SUBSCRIBER.

Large or Small Houses.

In a communication to the FLORIST of Feb. 15, Mr. M. Milton, in speaking of a place at Calla, Ohio, says: "Of course it takes more heating surface to maintain an even temperature in one 20-foot house than in two of ten feet each, all being of the same length." I wish to take exceptions with Mr. Milton on this point.

We use five 1-inch pipes in each of our ten-foot houses, which with the temperature outside at zero, and with four or five pounds of steam in the boiler, will give us a temperature of 50°; whereas in our 20-foot houses, lying alongside of those just mentioned and with the same conditions, using ten 1-inch pipes, we can maintain a temperature of 60°. The houses are all built in the same manner. Farther, we find that in the small houses in case of moderate and bright weather when very little artificial heat is needed in the day time, this heat is needed later in the morning and earlier in the afternoon than the large ones. Aspect might alter the case in this latter particular, but in the majority of cases it will hold good.

Last summer I built a house 100 x 35 feet with aspect due south, the whole roof, with the exception of a 4-foot slope to the north for ventilation, facing due south with an elevation of little better than 30°. In this house we placed three runs of 3½-inch pipe, and one coil of five 1-inch pipes, and we find that, notwithstanding the large amount of space to heat in this building and its extreme height, it is the cheapest house to heat on the place, the coil of five 1-inch pipes and two of the 3½-inch pipes being sufficient to maintain a temperature of 60° with a zero temperature outside. Farther, with the thermometer outside showing 15° or 20° of frost on a bright day, every particle of heat is shut off from this house from 1 a.m. till 3 p.m., the heat from the sun's rays maintaining a temperature of 70° to 80°. I am thoroughly convinced that the theory of building small houses for economy in heating is entirely wrong.

Here are some of the best fuel economizers that I have ever tried: get roof enough in your houses to give sufficient light (remember light is heat). Don't use pipe smaller than 2-inch, especially if your runs are long. Don't use small mousing—automatic dampers and such rigs were invented to help out boilers that were not large enough to do their work economically. Don't use hard coal for making steam. This article applies to steam heat only.

Bay City, Mich. JOHN IRVINE.

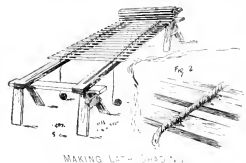
Shading.

The importance of proper shading for plants under certain conditions is admitted by all, but the methods of application are various and the medium used not always wise. None of the plants ordinarily grown in small commercial houses should have all the rays of the sun kept from them, even in summer time. If the house is shaded by whitewash or paint on the glass, it is preferable to paint it on in strips, leaving at least from one-half to three-quarter inches of clear glass between; by this means all the plants will receive a limited amount of direct sunlight during the day and still be protected as much as is necessary.

Lath shading is excellent where to be had, as it can be readily taken off and as readily replaced when necessary; this of course constitutes a great advantage over a permanent shading. This shading is

used exclusively at the greenhouses in 1, Lincoln park, Chicago. It is manufactured during spare hours in the winter in the following simple manner: On two stout wooden horses are laid two long flat cross-pieces, and on the center of each is fastened an inch-wide iron strap running the entire length. The lath are laid on these about one-half inch apart; stout cord (similar to that used for clothesline) is drawn taut across the ends directly above the iron straps, and light wire staples used to secure the cord to the lath, as shown in the illustration. The iron straps serve to clinch the staples and make good work.

Where a long piece is required one end can be rolled up and the operation continue until a sufficient length is obtained.



Cord is used in preference to wire from the fact that with the latter the shading does not roll satisfactorily. Mr. Strombach, who has charge of the park greenhouses, states that the cord lasts about three years. This shading has also a great advantage as a protection from hail in summer time. No shading should rest directly on the glass if the best results are to be obtained; a small open space between the glass and shading permits a current of fresh air to circulate over the surface of the glass, which assists very greatly in keeping the house cool. Shading from the inside of the house—as is frequently done—is almost valueless.

Hot-Water Circulation.

So much has been written in your valuable paper upon the subject of heating greenhouses by hot water, on one system or another, that the matter should be about exhausted. Still as I presume the bulk of what has been written has been with the view of leading the small greenhouse men, and those about to build, in the right direction, there seems to me to be one or two simple points, scarcely commented on, which are of vital importance.

I fail to see that hot water engineering has been in the least improved for the past forty years at least. That great authority and, I think, still the greatest on the subject—Hood of London, England, first published his work in 1841, and the principles he lays down are to this day found to be the most efficient, and are followed precisely by the leading hot-water men of this country. The rules are simple, almost always practicable, and can always be applied to a commercial place. If there is one point of more importance than all the rest, it is to keep your boiler well down, the deeper the better. If possible the top of boiler should be four or five feet below level of greenhouse floor; this is not always practicable for want of drainage, but any extra expense in deepening stoke-hole will be well repaid in saving of fuel. The flow pipe should rise vertically from boiler to the level of flow-pipe in house, and the return should drop perpendicularly at the boiler. The pipes in green-

house both flow and return should run the length of the greenhouse, or all around as the case may be, on a dead level or one inch rise in 100 feet, reserving all decline in flow pipe for a good vertical drop at boiler. The motive power, if such it may be called, which causes circulation, is the difference in the weight of water in the descending return-pipe and the ascending flow-pipe. Therefore the speed at which the water circulates will be governed entirely by this difference, and the greater it is the faster and more perfect the circulation will be.

I have had charge of at least fifty boilers these past thirty years, of many different styles and sizes, no two of which had the pipes attached to them in exactly the same way; but without any exception, the farther they deviated from the above plan the poorer the circulation. I would like briefly to state my experience with an apparatus badly set up and with one arranged as near perfection as possible. Ten years ago I had 600 feet of 4-inch pipe attached to one of Hitchings No. 15. The stoke-hole was on solid rock and no sewer could be made to drain a deeper one. The top of boiler was just eighteen inches higher than floor of greenhouse.

The flow pipe left the boiler horizontally, kept a dead level around the house, the return dropping very gradually to boiler. All the fall the return water had was the difference between the outlets of flow and return-pipes on boiler. It was a dead failure, the return-pipe being scarcely warm, with the best of hard coal and skillful stoking. Now for the reverse: four years ago with the same boiler, put down in stoke-hole eight feet below level of greenhouse floor, I heated 800 feet of 4-inch pipe. The flow had a perpendicular rise of 10 feet and the return a perpendicular fall of eight feet, heating a rose house 100 x 20 feet, and never letting it get below 35° in zero weather. The return-pipe close to boiler, after having traveled 900 feet, was but a few degrees cooler than the flow. The pipes had a rise of two inches in 200 feet and the return the same decline. I should mention that the flow rose direct into an expansion tank and from there flowed out at level of pipes in greenhouse. I am well aware that the boiler was much too small for the work and the temperature was only kept up by continual firing but no more firing than was required by the same boiler with 600 feet of pipe, which was a perfect failure.

There is nothing to prevent a florist from being his own engineer when putting in his pipes and boiler when the job is not large enough to call in one of our professional men. The local plumber, whether in a small town or large city, is better left alone. They can supply a mechanic to crank the pipes if wanted, but I should as soon think of going to the undertaker for advice in arranging pipes.

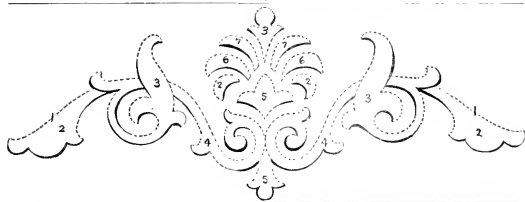
Buffalo, N. Y.

DOWN-HILL PIPING.—Yes, hot water flows fastest at the top just as G. S. B. says, on page 230. Put the pipes side by side and use tees with inlet and outlet from the center instead of ends. Steam will work in a gang of pipes one above the other, water will not. The steam condensing draws upon the supply, water in cooling remains a clog in the lower pipe while the current is free flowing through the upper pipe. The river is most rapid running at the top. 'Tis nature's law.

JOHN LANE.

Fancy Bedding.

In our issue of Nov. 15 last we gave an illustration of a piece of arabesque bedding, which last summer was traced on each side of the sunken parterre at Lincoln park, Chicago, and we now give a diagram of a similar piece which occupied a position at the southern end of the same parterre. While this style of bedding is sometimes condemned as too artificial, this was certainly remarkably effective in the position given it, forming in connection with the side arabesques a perfect frame for the taller plants which occupied the large bed in the center of the parterre, the wide space of green lawn between them preventing any clashing of color.



Key to diagram: 1. *Echeveria roseacea*. 2. *Alternanthera paronychioides* major. 3. *Alternanthera aurea* nana. 4. *Oxalis tropaeoloides*. 5. *Alternanthera aurea* nana. 6. *Pilea Casei*. 7. *Alternanthera versicolor*.

Plant Notes.

A LARGE sample bloom of a white carnation is sent us by Adolph G. Fehr, Belleville, Ill., who says it is a seedling of his and that it is a free flowering variety, free from disease.

SMILAX.—Will some correspondent give the best method of growing smilax, describing the various operations from the seed pan up? An article on *Asparagus tenuissimus* would also be acceptable.

M. F. S.

A PROLIFIC CARNATION.—D. R. Woods & Co., New Brighton, Pa., send us a sample spray of a deep scarlet carnation, which they state to be a new French variety. The branch sent, which is about six inches in length, bears four expanded blossoms and eight buds.

AMPELOPSIS VEITCHII.—I have received this from two reliable firms. That from one house is of slender growth, the stems darker than the other, and the buds are red. The other is thicker stemmed, short jointed and the buds are green. Which is true? M. F. S.

MEALY BUG.—A number of preparations are claimed to eradicate this pest, but I find that "ice water" will do more good and less harm than any of them. Give the plants a thorough syringing with ice water three or four days in succession. It is far more efficacious and will injure the plants less than any mixture. AUG. S. S.

CALLA VARIEGATA.—In regard to this novelty Mr. E. Hippard writes us that "of the numerous bulblets produced by his plants about two-thirds are marked, and when the markings are once shown they are constant, as the variegation is found in the bulb itself, which may be seen by cutting the bulb. Every side shoot is not variegated,

for if an eye appears on the green side of the bulb the shoot will be green and remain so. There is no danger of its running out if care is used in propagating."

SCALE.—To remove this pest, so common on hard-wooded plants, make a mixture of one part coal oil and two parts milk (sweet or sour), stir together until it forms a cream-like mixture; to this add twelve times its bulk of water, adding the latter gradually and stirring thoroughly. One or two applications with the syringe will be found effectual in most cases. In using the solution let the water with which it is diluted be heated to 100° or 120° and use while the mixture is still warm; it will be more

effective than when applied cold, as it softens the hard backs of the scale and the solution acts more quickly.

R. J. H.

FREESIAS AFTER BLOOMING.—In reply to a recent query, would say that we get the best results by planting out on benches with five to six inches of soil, or in solid beds. After they have done blooming give weak manure water two or three times and dry off gradually, keeping them where they will receive bright sunlight, and leaving in the soil until the bulbs are fully ripened. If we can it be conveniently done so, it is best to leave them in the soil until ready to replant in August. We have grown both *F. refracta* alba and *F. Leichtlinii* major since 1882, and this winter have about 50,000 bulbs planted. We find *F. Leichtlinii* major to be much the strongest grower. S. EDWARDS & SON.

FREESIAS.—In answer to F. in the Feb. 1 number. We have grown freesias for the past three years and have had excellent success. We plant in flats, 18 x 20 by 2½ inches deep, in rich sandy soil, run through a fine sieve, placing about fifty bulbs in a flat. Keep near the glass until the tops begin to die, then dry them off and leave in the flats until last of August, when they may be sifted out; use a fine sieve, as some of the bulbs are very small. Replant in same kind of soil and keep rather dry until they start to grow, when they may have more water. Grow in a cool house, 50° to 45°, and keep near the glass. When they show buds we put them in 50° of heat.

R. MANN & SON.

BOUVARDIA ROSEA MULTIFLORA.—Judging from the very limited number of flowers one sees of this grand *bouvardia* it is not as well known as it deserves to be. During a recent visit to the establishment of Messrs. Lonsdale & Burton, Chestnut Hill, Philadelphia—where several nice things are always to be found—I saw this *bouvardia* in very fine bloom. It has the largest truss of any known variety and of a beautiful soft rose tint, and must certainly be very valuable to the florist requiring mixed

flowers. I also saw and examined some new seedling carnations of the Grace Wilder class, among which are two very promising varieties. Their roses, particularly the teas, are in fine condition.

J. N. MAY.

ROSE NAMENLOSE SCHÖNE.—To try the winter-blooming qualities of this rose we benched 150 plants last fall and were pleasantly surprised at the result. All but about 4 per cent of the shoots bore buds, many having three or four flowers at one time. The habit is compact, foliage light-green and luxuriant, flowers very fragrant, in color pure white with very light flesh tint in center. We do not hesitate to pronounce it one of the freest blooming tea roses which ever came under our notice. It will become popular as a forcing as well as a bedding rose. We send you some buds with this.

NANZ & NEUBER.

[The roses sent were rather small in size, but were quite fragrant and in color as above described.—Ed.]

CARNATIONS.—As many others are giving the names of the carnations they have found to do best with them, I will give a list of twelve which have proved the best of forty-five varieties which I have thoroughly tested: *Hinze's* white; *Philadelphia* or *Meteor*, vermilion, long-stemmed; *Chester* pink, white and carmine striped, long; *F. Mangold*, crimson, fringed, long; *Buttercup*, dwarf, dark yellow, long and short; *Venus*, light yellow striped carmine, long; *Century*, large, carmine, dwarf and mostly short stems; *Lulu*, red, and pink striped, large, long; *Secretary* Window, vivid scarlet, fringed, dwarf, long; *Mrs. Mangold*, delicate pink, strong grower, long; *Alegatiere*, dark scarlet, long; *Grace Farden*, rose, short and long.

HARTISBURG, Pa.

L. N. STEIN.

COBEA SEEDLINGS.—All know how difficult it is to germinate more than a very small per cent of *cobea* seed, and as I have just tried an experiment which has proved remarkably successful, I will describe the method used. I placed some sphagnum in the bottom of a 7-inch pot, covering with the full drainage; on this placed a 4-inch pot so as to bring the rims of equal height, and filled the space between the two with sand. I filled the inside pot one-third full of drainage, covered with rough soil, and filled even with the top with sand. Twelve seeds were sown very shallow on edge, and after moistening, covered with a flat glass and placed on an inverted saucer in a drum connected with a stove. Water was afterward given only to the outer layer of sand, and from the twelve seeds I have eleven healthy plants in their second leaf. How is that for *cobea* seed? L.

DEGRAW AND HINZE'S WHITE CARNATIONS.—These two carnations are receiving considerable attention at present. When well grown they are both good, but they require different treatment. *Degraw* succeeds best planted in not too highly enriched soil and fed with liquid manure as the flowering goes on. The best house of carnations I have ever seen was one in which this variety was grown. It belonged to John Thorpe when he was in Cleveland. It was simply wonderful the number of perfect flowers he cut from this house, and the above was the treatment he gave it. We then often talked carnation culture over, and he was fully convinced that stimulating with liquid manure at the time the greatest strain on the plants, when producing their blossoms, was the main point in his success. By following this method of culture since

with this variety I have had good success. I much rather prefer growing Hime's White, although not of the purest white, it produces large flowers generally on long stems of good shape and exquisite fragrance. In order to succeed with it, however, I find that it requires strong rich soil with abundance of water when freely growing, and perfect drainage to allow it to pass off freely. The same treatment is suitable for Buttercup; they succeed well together in the same house under the same treatment, but give Buttercup the treatment suitable for DeGraw and but little success would be had; suitable soil and conditions make it one of the most profitable varieties, while unsuitable soil and conditions make it the most worthless.

M. MILTON.

Reminders and Suggestions.

HARD-WOODED PLANTS.—The old double white camellias that have been blooming since last November will now have few blooms worth cutting, though they may bear many buds. The increasing power of the sun is starting the plants to run freely and the plants are about ready to push forth their young growth, consequently most of the remaining buds will fall, or if they start to open will not make salable blooms. Candidissima, the late blooming white, generally begins blooming this month and continues till May. Most of the red kinds should be in full bloom and continue for the next two months. Report the plants just before they begin to make their new growth—this wood will bear the next season's flowers. Give the plants a general overhauling this month; use the knife freely, cutting out all small twiggy wood and top all straggling branches. Always cut back to a strong prominent eye. Some of the plants in pots and tubs may need nothing further than fresh drainage and top dressing. Do not disturb good healthy plants unless you are sure that larger pots will be beneficial. Sickly plants with few roots should have the ball reduced and repotted in smaller pots giving good drainage. In repotting never give large shifts, one size larger pot is ample, using a stick to work the new soil in solid around the old ball. The best soil for camellias is decayed fibrous loam; no mixture is necessary. Give the plants ample room on the benches and turn occasionally. When growing give plenty of water and endeavor to maintain a temperature of from 60° to 75°. Do not allow them to make two growths in the same season or you will have no flowers. After growth is made air freely and they will form buds in quantity. Syringe frequently; a dry atmosphere and dryness at the root are frequent causes of failure.

Azaleas should be repotted when through flowering and given a general overhauling, using the knife to keep the plants shapely. Azaleas produce much small wood in the center of the plant which yields nothing and should be moved as an unnecessary draft on the resources of the plant. Large plants may not need repotting oftener than once in two or three years, but do not allow the drainage to become clogged. In repotting always keep the old ball well up in the pot, taking care that the crown is not buried (a common error). Soil for azaleas should be equal parts of loam and peat soil well mixed together. When peat soil is not to be had, use equal parts of good fibrous loam and leaf-mould with a little sand added. We have used above mixture for many years and wish for nothing better. To prevent the appar-

ance of red spider syringe frequently and keep a moist atmosphere at all times.

R. J. H.

DOUBLE GLAZING, as mentioned in March 1st number, would result in an accumulation of dust and dirt between the two roofs where it could not be cleaned out.

ANTI.

New York Retail Prices.

Perles, \$1.50; Niphotes, \$1; Cocks and Bennetts, \$3; Mermets, \$5; La France, \$6; American Beauty, \$12, and Hybrids, \$2 a dozen; Lily valley, Roman hyacinths, tulips, narcissus, and spirea, \$1 a dozen; callas, 25 cents each; smilax, 50 cents a string; daisies, heliotrope, and mignonette, 50 cents a dozen; longiflorum lilies, 50 cents each.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order.

SITUATION WANTED.—As gardener by a good grower roses, grapes and peaches under glass, references, single ad. 7c.
Address, A. H., care AM. FLORIST Co., Chicago.

SITUATION WANTED.—As foreman by a practical florist of 15 years' experience; thorough knowledge of forcing roses, lilies, etc.; references.
Address, G. Florist, Wilmington, Mass.

SITUATION WANTED.—As gardener or farm manager; single temperate; age 29; good references; county of Minnesota preferred.
Address, A. G., care AM. FLORIST Co., Chicago.

SITUATION WANTED.—By a practical man in florist establishment or good private place; English; age 24; single; four years in florist's office.
Address, C. H. R., Box 26, Nanticoke, Pa.

SITUATION WANTED.—By a gardener and florist; 30 years in the country; married; no family; house of reference; single ad. 7c. if place is permanent; good private place preferred.
Address, G. K., 10 Bowden St., Joliet, Ill.

SITUATION WANTED.—As head gardener in best-class place; age 36; married; with family; growing establishment; good; head first-class reference.
Address, W. Falmouth Hotel, Boston, Mass.

SITUATION WANTED.—By first-class florist, good soil, cut-flower and plant grower; busy on designs; has managed large business for years; neat, efficient, sober, active and honest.
Address, M. A. S., care AM. FLORIST Co., Chicago.

SITUATION WANTED.—By a practical gardener and florist; 10 years' experience; German; first-class commercial or private place preferred; best of references.
Address, J. G., care AM. FLORIST Co., Chicago.

SITUATION WANTED.—By a young man aged 26, six years' experience as second in a private greenhouse establishment; thoroughly understands care of gentleman's place; best of reference given.
Address, "SEVEN," care AM. FLORIST Co., Chicago.

SITUATION WANTED.—By a German gardener and florist; 25 years of age; married; neat raised and flower and experienced in all greenhouse and florist's business; speaks German, English, Polish, English and German; private place preferred.
Address, A. F. H., 100 Park St., Philadelphia.

SITUATION WANTED.—Gardener; Scotchman; single; age 32; private or commercial; is thoroughly experienced in the cultivation of roses, orchids, dahlias, and greenhouses; plants, ferns, vines, fruit, flower, kitchen and landscape gardening; 20 years of experience; best of references in this country.
Address, F. O. GARDNER, P. O. Union Hill, N. J.

WANTED.—A good rose and plant grower for a small private place; a good, neat, industrious man, liberal wages, the best references required.
Address, C. H. R., care AM. FLORIST Co., Chicago.

WANTED.—To lease or buy florist's place, \$5000; roses or smaller country preferred.
Address, giving terms, M. O'Brien, 20 Paul St., Camden, N. J.

MAN who has been formerly foreman and rose grower in Michigan, N. Y., and N. J., is now open to an engagement where choice roses and other flowers are grown for commercial purposes or where A. H. flowers are grown for private use and landscape gardening in the true sense of the word is appreciated. Address, O. K., care A. Macintosh, High Bridge, N. Y. City.

WANTED TO SELL OR EXCHANGE.—The finest W. mixed and large strains of pure-plants, one thousand of them \$1.00 per pair; also, one thousand, or take roses, Carnation Pinks or Gladioli; both will exchange.
Address, M. THIESSEN, 64 So. Nashville, Tenn.

FOR SALE.—Time white aster seed, \$7.00 per ounce.
Address, J. A. TOSNER, Florist, Mud Clay, Ill.

FOR SALE.—Weathered boxes and pans, also our immense stock of plants, filling 20 greenhouses, at very low prices. HARTSHORN & SONS, Cleveland, O.

FOR SALE.—Rooted cuttings, Fuchsias, \$1.00 per 100, ready now. Feverfew and Vander Strass Fuchsias, \$3.00 per 100. A. CATS, Springfield, Ill.

FOR SALE.—Two nice greenhouses 85 x 38, with office, in center of Chicago, well situated, with first-class stock for city retail trade; a good chance for the right man; must be sold soon on account of owner not able to attend to it.
Address, P. R., care AM. FLORIST Co., Chicago.

FOR SALE.—Two greenhouses, one rosehouse 30 x 100, and one 3 x 100 with 2-acre land, well situated in a city of 20,000, within twelve miles of Philadelphia; has advantage of two railroads (main lines).
Address, FLORIST, Philadelphia, P. O. Philadelphia, Penn.

FOR SALE.—Two greenhouses with general greenhouse stock in excellent condition, doing a good business in and out of town; about an acre of land and a good dwelling house on the place; a good chance for a young man with small capital; price, \$3,000 for the whole; must be sold soon. Call or address, ALBERT STEINMAN, Florist, Penn Yan, N. Y.

FOR SALE.—Well-established florist business, situated in a growing city with 25,000 inhabitants; best general communications. Eight good greenhouses, about 10,000 sq. ft.; glass, splendidly; one acre land included on one of the best streets. Also frame house with eight rooms; all in good order; good customer list. Established 1850. Best for selling, best health.
Address, B. C., care AM. FLORIST Co., Chicago.

FOR SALE OR EXCHANGE.—Extra large Pearl Theloneus cuttings, 2 1/2 ft. long, 25-30 per 100, or will exchange for tea roses in bunch pots.
Address, F. HALL & SONS, Clyde, O.

FOR SALE.—Verbena, choice selection, including 1000 plants, 2 1/2 ft. long, 25-30 per 100; from first stock plants well thinned, 100 for \$5.00, 200 for \$10.00, 1000 for \$25.00; rooted cuttings, 100 for \$1.00, 200 for \$2.00.

FOR SALE.—Rooted cuttings of Colours and Achyranthus, at \$1.00 per 100, \$5.00 per 1000. Would exchange rooted cuttings for ornamental tropical plants.
Address, J. B. HALL, 310 N. 10th St., University of Illinois, Champaign, Ill.

ALL GARDEN AND

Greenhouse Supplies

Trade List and Descriptive Catalogue of Plants, Seeds, Bulbs, etc., now ready and mailed free to all applicants.

ROBERT J. HALLIDAY,
Seedman & Florist,
BALTIMORE, MD.

WE SELL
EVERYTHING FOR *FLORISTS*
Plants, Bulbs, Seeds and Requisites.

If you do not already receive our **Quarterly Wholesale Price List**, please send name and address and it will be regularly mailed.

PETER HENDERSON & CO.,
35 and 37 Courtland Street, NEW YORK

Our New Alternanthera

Specialties Variegata Nana
(Price 25c. each, \$2.00 per doz.)

is described in our illustrated catalogue for 1887, is desirable to all florists and to all who grow plants for the market.

JOHN R. & A. MURDOCH,

PITTSBURGH, PA.

Water Lilies.

CAPE COD PINK POND LILY,
AND ALL COLORS.
Red, P.ink, White and Yellow.

BENJ. GREY, Malden, Mass.

WATER LILY ROOTS

Nymphaea Odorata.
\$5.00 PER 100. THE TRADE SUPPLIED.
WM. F. HALSEY,
W.ter Mills, Long Island, N. Y.

VERBENA CUTTINGS
Best varieties from true disease, White and Pink, in quantities at \$6.00 per 1000 mixed varieties.

LEROY L. LAMOREN,
Alliance, Stark Co., O.

The Cut-Flower Trade.

Spring Floral Fashions.

BY OUR NEW YORK CORRESPONDENT.

As is usual in Lent, home decorations, or quiet arrangements, are the rule. Strong colors, excepting yellow, are out of style. The most fashionable flowers are orchids, acacia, daffodils, Mernet roses, azaleas and the blue bloom of the myrtle. Orchids are found for the finest table decorations, and in clusters to finish room arrangements, those who can afford them. They are the handsomest flower for dinners, because their odor is not powerful. The center piece requires to be well fringed with ferns, and a festooning with oncidiums, or the moth orchid, gives a lightness to the piece. A satin or plush table cover enhances the effect when such elegant bloom is used. Water lilies are brought to this market regularly now, and the dinner decorations made with them are lovely. Pink, blue, and white lilies are placed in a silver dish of water, which is flat and low. The dish is fringed with ferns and pink begonia. The favors are clusters of stephanotis and asparagus.

A charming dinner decoration was made yesterday which was a center oval bed of vandas (cerulea), a band of forget-me-nots and a myrtle fringing. The favors were forget-me-nots and a single pink rose.

Pale purple is one of the most fashionable tints for dinners. Cattleyas are used on a satin cloth of lavender tint; the effects of their gorgeously painted cups is very rich. The favors are of lilacs, ferns and pink primroses. Small dinner parties being so prevalent at this time, our florists are ambitious to make these affairs as unique as possible. A fern, or green arrangement, which was very beautiful, was made in a private house this week. A scarf of adiantums was laid through the arch—a willow of lace fronts. The favors were two cypripediums and a frond of Faryense. Boutonnieres for men were a combination of ivy, myrtle and maiden hair ferns.

The favors for entertainments are delightful. Ears of corn are trimmed with a cluster of daffodils and a knot of ribbon—moss baskets are filled with spring flowers or roses, and with their high loop handles are well appreciated. Silver flower glasses, and those of glass, are filled with one specimen rose or a small bunch of lilies, mignonette, forget-me-not, daisies, or other spring flowers, and are among the most fashionable gifts.

Brides' gowns are elaborately trimmed with natural flowers. There are few weddings in Lent but the costumes ordered are making a sensation among those who hear about them. One wedding gown of white satin is to be massed with roses in the back breadth. The model of the dress is beautiful and simple, but from the sides it will be covered with bride roses, the train breadth in the back being finished at the edge with white lilacs. The bride will carry a bunch of Bride buds and white lilac.

Some beautiful trimming for dresses is planned for the parties of Easter week, and the orders are given. A young girl is to wear a crepe dress of pale pink, the corsage of which will be trimmed with lily of the valley, which has been dyed rose color, as is now the rage here. The flowers are so put on as to droop like a fringe and are applied in more profusion around the low or square neck. The

drapery of the skirt at the back is caught with the same blossoms. Daisies are very fashionable for trimming the gowns of very young girls. Yellow daisies are admirable for adorning ball dresses of a color bordering on the yellow. This tint is extremely popular, because becoming. It will be noticed that all golden blossoms are favorite. The choicest arrangements are made with acacia, daffodils and Marchal Niel roses.

"Spring parties" are one of the features in metropolitan entertainments. They are quiet affairs, of course, being in Lent, but are gotten up with a large outlay in flowers and to have a garden-like effect. An arch, placed from the double door of the corridor, was made of ivy and myrtle and festooned with Spirea Japonica. This led to the place where the hostess received. There were vases of roses and lilacs each side the entrance to the arch and large vases and palms each side of where the ladies receiving stood. A screen of ivy in the center of the room was covered with favors, baskets, satin pockets and dainty receivers, hand-painted and flower-filled; which was itself an object of beauty.

Funeral flowers are extremely elegant at present. Colored blossoms appear to have entirely superseded white ones, unless for very old persons when green designs are used, or pieces made of the leaves of the Imperial silver tree of Cape of Good Hope. Nothing is more beautiful for a casket than a cross of this silver leaf finished with a cluster of lilies or violets, and silver gray ribbon. There are all the rage here for memorial designs, and for the coffins of elderly people. A lovely arrangement for a casket of a young person or infant is a sash of daisies or lily of the valley. This is made of soft silks with the flowers sewed on; it is arranged to gracefully fall over the casket and is gathered at the side with a cluster of roses and foliage.

Corsage bunches are made small. Dutch hyacinths and asparagus are the combinations most fashionable. For wedding bouquets, orange blossoms and stephanotis are the most elegant.

"Spring babies" are receiving a lot of dainty gifts in the floral line. Little girl perambulators, cradles and socks appear, which are filled with tiny blossoms and are sent with congratulatory messages when these "strangers" are born.

Catalogues Received.

Robert Veitch & Son, New Haven, Conn., seeds and plants; J. A. Moody, Youngstown, O., seeds; Dunlee Nursery, Elgin, Ill., nursery stock; Jno. R. & A. Murdoch, Pittsburgh, Pa., seeds and plants; Geo. W. Park, Fannettsburg, Pa., seeds and plants; Wm. H. Barnes, Independence, Kan., plants; Anna R. Nickels, Laredo, Texas, cacti; Harkett's Floral Nursery, Dubuque, Iowa, plants; E. V. Teas, Duncort, Ind., nursery stock; Jayne & Co., Painesville, O., nursery stock; J. L. Dillon, Bloomsburg, Pa., plants; The Whiffen Pottery Co., Phila., alphiads, pots, seed pans, etc.; W. L. Smith, Aurora, Ill., plants; Paul Bat & Son, New Castle, Pa., plants; Henry G. Hingley, Cedar Rapids, Iowa, seeds and plants; Wm. Desmond, Kewanee, Ill., plants; H. R. Cotta, Freeport, Ill., nursery stock; Mendenhall Greenhouses, Minneapolis, Minn., plants; Geburder Schultze, Steinforth, Hessen, Germany, seeds; J. Q. St. Clair, Fort Worth, Tex., plants; Chas. A. Getz, Cincinnati, O., plants; Kendall & Whitney, Portland, Me., seeds.

New York.

Siebrecht & Wadley's trade list of orchids, palms, and other plants will be out April 1.

Mr. John Reid, of Jersey City heights, has a tremendous crop of Lilium Harrisii for Easter.

The Eden Musee is considered a paradise for flower shows, and has been engaged for the spring exhibition of the new horticultural society.

Mr. Hogg takes no pleasure in flower shows. I met him at the orchid exhibition, and he told me the arrangement of plants in rooms was never satisfactory to him.

The New York Horticultural society has never made a better move than that of bringing Alex. McConnell into their arrangement committee. Mr. McConnell is an enterprising florist and a gentleman.

Mr. James R. Pitcher will make a fine show of peonies in their season of bloom. He has been adding forty feet of glass to his rose house, and has built an orchid house 150 feet in length. Montview, Short Hills, will eventually be the home of an unusually grand collection of plants.

Cincinnati.

The local florists announce home-grown Jacqueminot roses.

E. H. Garge has opened a store on Cass street near the Arcade.

Business is remarkably good despite Lenten dullness in society.

A quaint funeral bouquet made up a few days ago contained over a hundred spikes of white hyacinths.

A beautiful funeral basket made by Huntsman contained a score of great white lilies and was bordered with azaleas.

A Cincinnati bride carried a bouquet of sweet violets and maiden hair fern here a few days ago. There is no accounting for tastes.

The white floral parasol under which a Cincinnati bride and groom stood the other day was dotted with clusters of violets, roses, tulips, and lilies of the valley. At the handle there was affixed a large bunch of calla lilies. Sunderbruch made it.

A violet dinner was given here this week. There were large corsage bunches of those flowers tied with deep lavender streamers of silk, and boutonnieres for the men. The corners of the tables were looped up with knots of violets. Sunderbruch arranged it.

Henry E. Dixey was presented by Cincinnati Lodge of Elks with a magnificent floral casket made by Huntsman. A gilded vase of Mernet and Marchal Niel roses was shown within a solid frame of calla lilies. The scrolls above and below were appropriately inscribed.

A young lady graduate of a dental college, in addition to the usual bouquets, received a floral tooth—one of Sunderbruch's designs. It was formed of white cape flowers, and a lot of yellow immortelles did duty as "gold filling." The tooth was a tooth long and created lots of merriment.

At a recent funeral an entire room was filled with flowers. The casket was covered with a design of Critchell's; it was in two parts; one was of white hyacinths, in the centre of which was a bed of Bride roses flanked by diamonds of yellow roses. A large lily lay at each corner. The lower portion was composed of the same blossoms mixed. An open space was left for the name plate, the entire design being bordered with freesias. "REN."

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Inch, \$1.40; Column \$14.00.
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Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.
No reduction made for large space.The Advertising Department of the AMERICAN
FLORIST is for Florists, seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.Advertisements for April list issue must
reach us by noon, March 25. Address.

THE AMERICAN FLORIST CO., Chicago.

B. F. WELLINGTON, the San Francisco
seedsmen, sends us his 4-page seed and
poultry journal.MR. HARRY BAYERSDORFER, who is
just from Evansville, Ind., reports Mr.
Carmody as very enthusiastic over the
prospects of the Society of Indiana
florists.BEATTY & CO., NEW YORK, send us
copies of their chrysanthemum chromo
and colored plate of American Beauty
rose. The chromo is a handsome picture
representing a vase holding a bouquet of
eighteen blooms of popular varieties of
chrysanthemums, all accurately colored
in the best style of art. We should
consider it of much value to any grower
of these plants. The plate of American
Beauty is the most elegant and accurate
piece of colored work we have ever seen.
Three blooms are represented in various
stages of development, and show the char-
acter of the rose to perfection.**SUBSCRIBE NOW**

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all at \$2.00 per 100. Sixty-five leaves.MRS. J. & E. THOMSON,
Wholesale grower and collector, Spartanburg, S. C.**Cut Flowers.**

BOSTON, March 8.	
Roses, Teas	1.00
" Perles, Niphetos	8.00
" Mermets, LaFrance	10.00
" Jacques	20.00
Carnations	1.50
Violets	75
Lily valley, Romans	4.00
Narcissus, tulips	1.00
Smilax	20.00
Adiantum	2.00
Callas	8.00

NEW YORK, March 8.	
Roses, Perles, Niphetos, Souvs	8.00
" Bonnets	1.00
" Cooks, LaFrance	15.00
" Mermets, Papa Gontiers	17.00
" An. Beauty	30.00
" Jacques	15.00
" Bon Solaires	4.00
Carnations, long	2.00
" short	1.00
Lily of valley, narcissus	2.00
Tulips, Roman hyacinths	1.00
Roman	4.00
Violets	2.00
Smilax	20.00

CHICAGO, March 9.	
Roses, Perles, Niphetos	6.00
" Mermets	7.00
" Bon Solaires, Safrans	5.00
" Bonnets, La France	10.00
" Jacques	5.00
Carnations	1.50
Violets	2.00
Romans, narcissus valley	10.00
Callas	25.00
Smilax	3.00
Tulips	8.00
Camellias	30.00

PHILADELPHIA, March 8.	
Roses, Teas	2.00
" Perles	6.00
" Niphetos	6.00
" Bon Solaires	5.00
" Bonnets, Cooks, Bennetts	10.00
" Jacques, Neils	15.00
Carnations	1.50
Boncharms	1.00
Tulips	5.00
Smilax	4.00
Callas	10.00
Harrieds lilies	30.00

Flowers plentiful and demand slow.

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We offer as specialties for March

Heath.**Orchids, Cyclamens.****Acacia.****Fine Roses.**

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Telegraphic orders will receive prompt attention
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Mention the AMERICAN FLORIST.**D. M. STINSON,**

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Consignments solicited.

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John Breitmeier & Sons,

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early morning trains. Notice given from 2 p.m.
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Only wholesale store in the U. S. open
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We make a specialty of shipping choice flowers and
other Florists, carefully packed, to all points in
Western and Middle States. Notice given from 2 p.m.
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Bonnets, Cooks, Perles, Niphetos, Grace-Wildor and
Anna Webb pinks and all other flowers in variety.
We price-list nothing but first-class flowers and make
a specialty of shipping all flowers invariably shipped
at buyer's risk. We handle as fine a stock as Boston
produces. Auction sales of leading florists. Special
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All orders shipped e. o. d., unless otherwise agreed.
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Code when ordering by telegraph. For prices & ad-
dress.**J. L. DILLON, BLOOMSBURG, PA.**

The Seed Trade.

Larger holders of onion seeds are said to be inclined to shade prices some to move their stock.

JOH. M. RYVOET, of Ryvoet Bros., Harlem, Holland, called on the FLORIST March 5. Mr. R. says he finds tobacco growing in Sumatra is financially much more interesting than bulb growing in Holland.

THE STATE OF TRADE.—At this date from advices received from twenty-five leading seedsmen and florists of the United States, we summarize the spring trade in seeds and plants for the past four weeks as follows: Rather backward from Feb. 10 to 25, while fully equal to 1886, to no great extent exceeding that season. Since Feb. 25 the gain has been more marked, indicating an average increase of 10 to 20 per cent over last year. While this is not the "boom" that some have predicted, it is, nevertheless, a good, healthy growth. The gain for the past ten days has been such that we need not yet lose hope of a very lively trade as soon as people find the planting season really at hand.

SURPLUS STOCK.

Roses, Geraniums, Begonia Louis Chretien and Echiveria Metallica.

Also general stock of greenhouse and bedding plants. Send for Price List.

I. N. KRAMER & SON,

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LETTUCE PLANTS.

Strong, transplanted, ready for Bench or Hotbed.

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CHRYSANTHEMUMS.

Finest collection in the West. 100 named varieties.

Mostly new sorts, \$3.00 per 100.

From 2 1/2 in. pots.

Chrysanthemum catalogue ready Jan. 1, 1887. Send for it.

H. L. PHELPS, Florist, Springfield, Illinois.

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PARKERSBURG W. VA.

15 VARIETIES COLEUS

In 2 1/2 inch pots, \$15 per 1,000, from bed; \$7 per 1,000. Early summer and Wakefield cabbage plants. Transplanted, \$4 per 1,000.

SPECIAL OFFER.

Geraniums, rooted cuttings of Edwardsii, Philadelphia Crimson King, scarlet gem and Portia at \$2.00 per 100, same per 1,000. Also a lot of plants of Edwardsii from boxes, fine, at \$15.00 per 1,000.

VERBENAS.

Scarlet, 8 shades, mixed, pink, 4 shades mixed; 5c. per 100, \$6.00 per 1,000.

Coleus, in good holders, mixed, at 90c. per 100, \$9.00 per 1,000.

When present stock is exhausted will not order at prices quoted.

Phlox Drummondii Grandiflora.

Best strain, transplanted seedling, 9c. per 100. You can make money on these; write for particulars.

ALBERT M. HERR,

LOCK BOX 338, LANCASTER, PA.

PLANTS—SEEDS—BULBS

SMALL FRUITS, HELIOPSIS, STRAWBERRIES, ROSES, GERANIUMS, VERBENAS, PHLOXES, PRIMULAS, ANEMONES, CROCUSES, TULIPS, LILIES, IRIS, HYDRANGEAS, CAMELLIAS, JASMINE, SWEET WOOD, SWEET GUM, SWEET ALMOND, SWEET ORANGE, SWEET LEMON, SWEET PEACH, SWEET CHERRY, SWEET PEAR, SWEET APPLE, SWEET QUINCE, SWEET FIG, SWEET PINEAPPLE, SWEET MELON, SWEET CUCUMBER, SWEET PUMPKIN, SWEET SQUASH, SWEET PEAS, SWEET BEANS, SWEET CORN, SWEET POTATOE, SWEET YAM, SWEET TURNIP, SWEET RUTABAGA, SWEET CARROT, SWEET PARSNIP, SWEET CELERY, SWEET FENNEL, SWEET DILL, SWEET CHIVES, SWEET BASIL, SWEET MINT, SWEET PARSLEY, SWEET THYME, SWEET MARJORAM, SWEET SAGE, SWEET OREGANO, SWEET LAVENDER, SWEET ROSEMARY, SWEET SWEETWILL, SWEET STICKLEWORT, SWEET WOODRUFF, SWEET ANISE, SWEET FENNEL, SWEET DILL, SWEET CHIVES, SWEET BASIL, SWEET MINT, SWEET PARSLEY, SWEET THYME, SWEET MARJORAM, SWEET SAGE, SWEET OREGANO, SWEET LAVENDER, SWEET ROSEMARY, SWEET SWEETWILL, SWEET STICKLEWORT, SWEET WOODRUFF, SWEET ANISE.

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PEARL-TUBEROSE BULBS. Good sound bulbs, 4 inches and over in circumference, \$3.00 per 100, \$8.00 per 1,000.

GERANIUMS. Single and double, 2 1/2 inch pots, strong plants, \$1.00 per 100.

DOLBE, DAINY VICTORIA, 2 1/2 inch pots, \$2.00 per 100.

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CHOICE GRAPE VINES.

A few thousand second size, well-rimmed plants of the following varieties:

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Samples, 1 of each 10 varieties, free by mail for \$1.00.

Prices in quantity given on application.

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What Mr. Beyer says:

"I accept my thanks for the splendid seeds received from your firm. It would be a rather lengthy list if I should name all, but will say that amongst 35 first, and 3 second premiums awarded me at our fairs in Northern Indiana and Southern Michigan, 25 first premiums were for vegetables raised from your seeds. What firm can treat this?"

ALBERT BEYER, So. Bend, Ind. Seed of this quality I am now ready to sell to every one who title a farm or plants a garden, sending them FREE my Vegetable and Flower Seed Catalogue for 1887. Old customers need not write for it. I catalogue this season the newest and best results. J. S. J. B. GIBSON, Seed Grower, Mt. Airy, N. C.

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Currie Bros' Horticultural Guide for 1887, now ready, will be sent free on application. It contains many Rare Novelties in Flower and Vegetable Seeds.

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Illustrated, Descriptive, and Popular Seed Annual for 1887

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RELIABLE SEEDS

Wholesale Only.

For Catalogues of Vegetable Seeds, address,

C. H. JOOSTEN,

Sole Agent for the U. S.

3 COENTEN SLIP, - NEW YORK.

Ampelopsis Veitchii

Fine Plants, 3, 4 and 5-inch Pots. Stock on hand limited; order early.

For Prices Address,

C. H. JOOSTEN,
3 COENITS SLIP, NEW YORK.

ANNA WEBB,

The best dark Carnation grown.

Will let any man \$50.00 that it is so and I was the largest grower last year; also that it sold for a higher price than White and I will sell cuttings of the same at \$1.50 per 100.

FRED B. GLEASON,
MARLBORO, MASS.

5,000

Hinze's White Carnation Plants

For Sale, from 2 1/2-inch pots, \$2.50 per 100.

Hinze's is the healthiest and best white Carnation grown for florists' use.

F. E. FASSETT & BRO.,
Ashtabula, Ohio.

CARNATIONS

Hinze's White and Red, Peter Henderson, Snowden, Son Fourn, Fortin, Detroit, Scarlet Gem, Garfield, Cannon Violet, Lady Emma, Century, Philadelphia, 2 and 2 1/2-inch pots, \$1.00 per 100. Verbeke's, fine plants, \$2.50 per 100. Smilax, good plants, \$1.00 per 100.

HARRIS JAYNES,

81 Euclid Ave., CLEVELAND, O.

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IN FLOWER SEEDS.

PURE STRAINS

OF THE HIGHEST QUALITY.

ASTER.

Trillium's Perfection, mixed colors.	TR. PKT. OZ.
" " snow white.	50 5.00
" " brightest pink.	50 5.50
" " blue.	50 5.50
" " crimson ball.	50 5.00
Zingibell's pure white, grown by Mr. Zingibell.	50

President CRAIG says of our Aster seeds: "All the varieties of Trillium's Asters we had of you were very fine, particularly the 'CRIMSON BALL,' which is the richest crimson and the most double we have seen."

ROBERT CRAIG.

TRADE PKT. OZ.

Balsam, White Perfection, the very best.	50 5.00
Double.	50 5.00
Mignonette Miles, hybrid carnation.	50 5.00
Pansy, Doer's premium mixed.	50 5.00
Pansy, Giant Tricolor.	100 10.00
Smilax.	50 5.00
Stock Teint-Giant White, ex. double.	50 5.00
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We are growers on our own grounds of many of the leading varieties, as Pansy, Verbeke, Hollyhock, Vinca, Petunia, both single and double, Delphinium, Salvia, etc., and we are in position to back up our assertions with results.

Sent for Dreer's Wholesale Trade List of Flower Seeds, offering the most improved varieties for florists' use. Mailed free of application.

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Seedsmen & Florist. PHILADELPHIA.

Early Spring Vegetables & Flowers,

Also Early and Prime Tomatoes, Red Plants, Farmers, Gardeners and Florists use the Patent Protecting Cloth, originated and prepared only by us. It is equal to glass, sash, and costs but a cent as much. On cold frames and hot beds, and for Tobacco Plants has no equal. Protects from frost; plants hardly and rapidly grow; does not shrink or decay rapidly. Widely known and used by leading growers. Details for 5 and 6 cents per yard—26 inches wide. Sent for Circulars. Samples, etc., free. U. S. WATERPROOFING FABRIC CO., 26 South St., New York.

HISTORICAL FACTS.

"What better place could creatures find Than here to thus express their mind."

And freely spread on History's page A fact to shine through every age."



One was the Wm. Francis Bennett and was brought from England at great cost by an enterprising young Philadelphian, Chas. F. Evans, the other was an American sort, and originated at Washington, D. C. It was claimed for both these roses that they had remarkable value for cut flower growing, which about this time was beginning to be a great industry in that country, although nobody dreamed that it would reach its present enormous proportions. One faction held that both roses were valueless, another that the Bennett was a good rose but the Beauty was no account, another the reverse of this, and still another faction claimed that both roses were good, very good, and very profitable.

Looking at the controversy at the distance of over half a century, when all prejudices have died away, we are inclined to think that the latter were entirely right. Indeed, this is confirmed by letters given below, taken from the correspondence of the Wm. F. Elliott Co. of Pittsburgh, who at this time had the reputation of producing the healthiest and best grown Roses in America, and who were very careful never to identify themselves with any Rose except of sterling merit. — *Excerpt from the History of the Rose.*

EXTRACTS FROM THE CORRESPONDENCE OF THE B. A. ELLIOTT CO.

OTTO ANDREAE, MARCH 4, 1887.

Central Valley, N. Y.

Mess. B. A. ELLIOTT CO., Pittsburgh.

Dear Sirs:—My order looked up with you present stands. 1,000 La France 500 Wm F. Bennett.

Will you please look 200 more Bennetts? I would like to have the whole lot delivered by the end of April.

I was very much pleased with the American Beauties and the Bennetts which I bought from you last season. Your plants in a very short time made good growth, and proved to be healthy, thriving plants, giving me a profuse bloom through the winter months. I like therefore

great pleasure to increase my order for the next season. Yours truly, OTTO ANDREAE.

W. H. DEFOREST, NEW YORK, MARCH 11, 1887.

Mess. B. A. ELLIOTT CO., Pittsburgh.

Gentlemen:—The Bennett roses you sent me last season were the finest stock we ever received. They have done well and we shall continue this rose the coming season.

The 1,000 American Beauties we bought from you this week are wonderfully well grown and I take pleasure in saying that everything we bought of you has proved most successful. Yours truly, W. H. DEFOREST.

ADVERTISEMENT OF THE B. A. ELLIOTT CO.

"The American Beauty" is now admitted to be the most remarkable rose introduced for many years. We have found it the most profitable Rose for cut flowers we have yet grown and having two large houses filled with it we are fairly able to judge of its merits. Commencing in September, when we were cutting from one to three hundred flowers a day, we retailed them at 25 cts. each. This price gradually advanced until the holidays, when we sold all we had at \$1.25 each, our cutting was then about fifty a day. We have given it exactly the same treatment as Pries, Mermet, Sphinxes, etc., and the flowers produced have been fully equal to the best hybrids, and very much easier and more profitable to grow. We have found it also a most excellent out-door Rose and perfectly hardy.

"We have the largest and healthiest stock of this Rose in America, and are prepared to make the lowest prices either for present or future delivery."

"We have also a very large stock of 'Wm. F. Bennett' and 'The Bride' Roses. Bennett is now well and favorably known. 'The Bride' has fully realized all that Mr. Myr promised for it, and is certainly the best White Rose for cut flower purposes."

"We grow a large stock of all the standard varieties of cut flower Roses as well as the most popular varieties for general culture. It will pay to write us for prices and to buy our stock, as it is perfectly healthy and gives the greatest satisfaction to purchasers. Orders from cut flower growers for stock to be delivered next spring or summer especially solicited."

"We have a large stock of all the standard and new varieties of Carnations to offer at lowest prices. These all described in our new trade list now ready."

"We have a large stock of Asparagus Tennisimus fine well established, which we offer at remarkably low price of \$1.00 per 100."

"See what we say of 'Papa Centaur Rose' in last number of the FLORIST."

Bulbs! Immortelles!

J. A. DEVER,

Formerly of DeVeer & Broomkamp)

Old address, 47 Broadway, N. Y.

The General Bulb Co.

Voegelenzang (Holland).

Ls. Bremond fils,

Ollioules (France)



Mention American Florist.

✱ **BULBS.** ✱
RICHARDIA ALBA
MACULATA.

Dry Roots, Extra Strong, selected, \$12.00 per 100.
 Dry Roots, Extra Strong, \$8.00 per 100, \$70.00 per 1,000.
 Good Flowering Roots, \$3.00 per 100, \$30.00 per 1,000.

GLADIOLUS.

Choice American Hybrids, \$2.00 per 100, \$20.00 per 1,000.

GLADIOLUS NAMED AND IN SEPARATE COLORS
 Prices on Application.

NICHEL**Plant & Seed Co.**

718 Olive St.,
 St. Louis, Mo.

DUTCH BULBS.**JOHN BARTH. BOS.**

Overveen, near Haarlem, Holland.

LARGE GROWERS OF

HYACINTHS, TULIPS, NARCIS-
SUS, LILIES, ETC.

Catalogue ready in May, free on application

**Dutch Bulbs.****R. van der Schoot & Son.**

HILLEGOM (Near Haarlem)
 HOLLAND.

ESTABLISHED 1830.

GROWERS OF

Hyacinths, Tulips, Crocus

Narcissus, Lilies, Etc.

Intending purchasers, before ordering Bulbs, write us for a Catalogue.

Mention Am. Florist.

NOTICE.

Florists, Seedsmen & Nurserymen

Should all have our catalogue. It contains goods that all need. If you have not received a copy of our last (December) issue send for one, with some evidence that you are engaged in the trade, as we never place this list into the hands of amateurs.

NO. 2 TUBEROSE BULBS,

3 UP TO 4 INCHES IN CIRCUMFERENCE

We Fully Believe 85 Per Cent. will Bloom.

Pearl or Tall Double \$8.00 per 1,000. Variegated

Foliage Tuberoses \$5.00 per 100. Single Flowered

PURE STOCK, \$2.50 per 100.

Florists' Bulbs, Seeds and Plants

ALWAYS IN STOCK.

ADDRESS,

V. H. Hallock, Son & Thorpe,**EAST HINSDALE, NEW YORK.**

Contemplating a trip to Holland in April, I desire lists from the Trade of Dutch Bulbs wanted, in Hyacinths and Tulips, on which I will make from Holland positive offers at lowest rates for best stocks, not later than May 1, in ample time for orders.

While I do not expect to revolutionize the entire Dutch Bulb Trade in Holland and America, possibly I may benefit my customers by selection of best stocks from personal inspection.

J. C. VAUGHAN, 42 La Salle St., CHICAGO.**F. E. McALLISTER,**

—WHOLESALE DEALER IN—

Seeds For the Florist Market, Garden and Farmer. **Requisites** Such as Baskets, Immortelles, Grasses, Mosses, Bouquet Papers, Fannies, Plumes, etc. **Bulbs** For the Green-house or Garden.

22 Dey Street, NEW YORK.

FINEST FORCING BULBS

FOR LATE SUMMER AND FALL DELIVERY.

SUCH AS: Roman Hyacinths and Narcissus, Paper Whites, Lilium Candidum, Longiflorum and Harissii, Freesia, Anemone Fulgens, forcing Ranunculus, Gladiolus Colvillii Alba, Spirea, Lily of the Valley, pips and clumps, etc.

ORDERS BOOKED NOW

ALSO FOR: Roses, Azaleas, Rhododendrons, Palms and other Plants. Small and large Order alike welcome; but our special terms will be mailed only to those sending evidence of being in the trade. As prices are somewhat determined by size of order, applicants will please state right off quantities desired. References required from unknown parties.

Address,

AUGUST RÖLKER & SONS,

44 Dey-st., or P. O. Box 899, NEW YORK.

Medinilla Magnifica.

A specimen of this gorgeous melastoma is now in flower in the neputhe house at the botanic garden here. It measures four feet in height and five in diameter, the number of fully expanded clusters is twenty-nine and other seven are in process of development, making thirty-six clusters in all. This, it may be mentioned, is not the result of any special good treatment given to it, but rather the reverse; the plant was severely scorched by the sun in the summer of '85; it stood all last summer and autumn in an airy, slightly shaded house and was only put into its present warm quarters when the young wood was well ripened.

Washington, D. C. G. W. OLIVER.

HEAT FOR CARNATIONS.—Do colored carnations as a rule require more heat than white varieties? E.

YOUNG & ELLIOTT'S

CHOICE SEEDS,

FOR FLORISTS. FOR FARMERS,
FOR PRIVATE AND MARKET GARDENERS,
FOR EVERYONE WHO HAS A GARDEN.

Examine our prices before placing your orders.

YOUNG & ELLIOTT,
54 AND 56 DEY STREET, NEW YORK.

**TREES
SHRUBS
ROSES**

Offer for Spring planting the best hardy RHODODENDRONS, AZALEAS, JAPANESE MAPLES, and other choice ORNAMENTAL TREES, EVERGREENS, SHRUBS, ROSES, CHRYSANTHEMUMS and hardy PLANTS. Also select FRUITS and VINES. Best quality in quantity or specimen at lowest rates. Catalogues and estimates on application.
FRED. W. KELSEY, 208 Broadway, N. Y.

CARNATIONS.

Rooted Cuttings of the most desirable carnations now cultivated are ready for shipment.

We have a large and healthy stock of Snowdon, Edwardsii, Seawan and Century at \$15.00 per 1,000, with many other varieties and prices particularly described in our price list, which is furnished **FREE TO ALL APPLICANTS.**

AFTER APRIL 1,

we will furnish, if desired, at one-quarter additional price **PER 100**, transplanted plants of all the varieties named in our list. These will do well during the summer at considerable less cost for expressage.

ROOTED CUTTINGS

from the propagating bed if ordered early will answer every purpose, being most conveniently and cheaply handled.

CORRESPONDENCE SOLICITED

with parties desiring more than a thousand of each variety quoted at \$15.00, but we do not club varieties together in making thousands or hundreds.

THOS. F. SEAL,

Unionville, Chester Co., Pa.

CARNATIONS CHEAP

Samson and J. J. Harrison, from 24-in. pots \$4. per 100. The same in Rooted Cuttings, \$2.50 per 100. Huzzos, White, Portia and 20 other sorts, 24-inch pots, \$1 per 100. The same in rooted cuttings \$1.50 per 100, \$1.25 per 100 assorted. **ADAMSON, J. G. B. BROW, Fishkill, N. Y.**

PANSY -+- PANSY
Fine Plants. \$1.50 per 100; \$10 per 1,000.

Either in separate colors or mixed. The seed is from the great Pansy Specialist, H. Wrede, Langenburg, Germany and consists of a strain of colors. **JOHN C. FLEISCHER, ST. PAUL, MINN.**

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FOR FLORISTS

FOUR IN A LB., packed in bales of 200 to 250 lbs.

No CHARGE for delivering to depots

— PRICE —

From \$5 to \$10 per ton, according to quantities. Address:

P. C. FULWEILER,

716 Arch Street. Philadelphia, Pa.



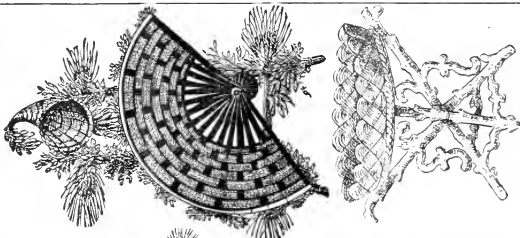
J. M. GASSER'S PAT. ZINC JOINTS

For Butting Glass without Laps.

Makes it air and water tight. No breakage from frost. Saves fuel and glass. **FLORISTS' WATERBURY.** For Flues and Hot Water, \$1.00 per foot, Steam, \$2.00. It will ring a bell when the temperature changes, and ring when the steam goes down.

J. M. GASSER.

71 Euclid Avenue, CLEVELAND, OHIO.



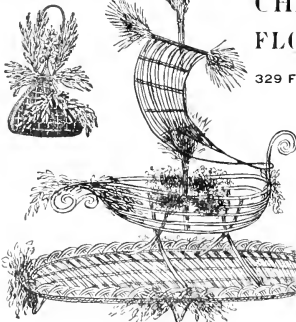
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MANUFACTURER OF

FLORIST BASKETS.

Send for Terms and Catalogue

329 Fourth St., - LOUISVILLE, KY.



See the American Florist



Sales Unprecedented!!

STOCK LIMITED.

ORDER SOON.

It is admitted by all that our stock is now in finer condition than that of any other new Rose ever offered. *Come and see it.*

PURITAN!**MRS. JOHN LAING!****METEOR!**

The Puritan.

A pure white hybrid tea seedling.

No more valuable rose has ever been offered to the public.

A rose similar to its parent, Mabel Morrisson, but blooming continuously and as profusely as Catharine Mermet.

Clean foliage, with no disposition to mildew.

Delightfully fragrant, having strongly the odor of the magnolia.

Flowers can be cut with stems averaging from 15 to 18 inches, and have a wreath of foliage directly encircling the bud.

A certificate of merit was awarded this rose by Mass. Horticultural Society, Nov., 1886; also a silver medal by Penna. Horticultural Society, Nov. 1886.

Mrs. John Laing.

This rose is *the* hybrid rose for early forcing; it can readily be brought in for Christmas.

Its color is a beautiful soft pink; it has a most delicious fragrance and is finely shaped.

It is a very strong grower, profuse bloomer and is free from mildew.

A grand garden rose. Not over strong plants have produced six to eight flowers each in early forcing this winter.

It has been certificated wherever shown, and was awarded the gold medal of the National Rose Society of England, July 7, 1885.

The Journal of Horticulture in describing rose show at Crystal Palace, July 4, 1885, where 125,000 blooms were exhibited, says:—

"*The rose of the show* was Mr. Bennett's new triumph, Mrs. John Laing."

The Meteor.

This is the darkest red hybrid tea rose in existence.

Its color is a deep velvety crimson, without any purple tinge.

It is a constant and good bloomer, a strong grower and is free from mildew.

We recommend this rose especially for spring, summer and fall blooming, when it is too hot for Bennett buds to be useful.

It has been exhibited but once, when it received the very highest recommendation from the judges.

Blooms of this rose after having been kept one week, when compared with freshly cut blooms have shown no change in color.

These new roses are no untried novelties; we have tested them for one year in our greenhouses, and we feel fully justified in asserting that they will prove exceptionally desirable and profitable to growers of cut flowers.

Plants of the above will be ready for delivery May, 1887.

Circulars with full description and prices will be sent upon application.

CHAS. F. EVANS,

STATION "F," PHILADELPHIA.

Trade Notes.

MINNEAPOLIS.—Wm. Buckendorf is selling out.

CATSKILL, N. Y.—R. D. Miller is about to build two new 50-foot houses.

COLUMBUS, O.—The Columbus Artistic Floral Co., Chas. Eckert, proprietor, have opened on North High street.

CHICAGO.—J. Lang & Co. are building four houses 100 x 12 at corner of Melrose and Robey streets, Grosse Park.

ROCHESTER.—The Philadelphia Floral Co. succeed Nendahl & Holwede. A war of prices is raging between the florists here. Fancy roses are being sold at retail for 40 to 50 cents. Jacques 75 cents, and carnations for 20 cents a dozen.

SAN FRANCISCO.—Henry Neuberger has built a rose house 46 x 115 feet, said to be the largest on this side of the Rocky mountains. A florist here ordered \$260 worth of roses from an eastern grower to be shipped by fast freight, and they were packed so poorly that on arrival the plants were as dry as kindling wood and utterly valueless.

WACKESHA, WIS.—At the State Horticultural convention, Feb. 18, Mr. C. W. Garfield, of Michigan, delivered an address on "When, where and how to teach horticulture." He recommended the establishment of experimental stations and a horticultural college. There was some discussion as to the advisability of making the secretary's office a salaried one—that officer to devote time to organizing branch societies through the state. The constitution of the society was amended so that the annual meetings might be held at different points throughout the state, instead of at Madison as had been the custom.

CARNATION CUTTINGS.

Rooted cuttings of Grace Wither, Chester Pride, Century, Seaway, Edwards, Peter Henderson, Snowdon, Lady Emma, Philadelphia, and Scarlet Gem.

Price, \$2.00 per 100. \$15.00 per 1,000.

Send for price list of potted plants, ready March 1.

A new work on "Carnation Culture," by L. L. Lamborn, will be sent free on all orders of \$50.00 and upward from this list, or on receipt of price, \$1.50, will be sent postage prepaid to any address.

WM. SWAYNE,
CARNATION GROWER,
P. O. Box 235, KENNETT SQUARE, PA.

FLORIDA AND WEST INDIAN FERNS For Trade.

Neptunia exaltata, \$1.00 per doz. \$10.00 per hundred, \$80.00 per thousand. *Vittaria lineata*, very curious epiphytal fern, \$5.00 per doz.

Aspidium autumn-glabrum, *Asplenium eburneum*, *Ricciom serrulatum*, *Goniophlebium cinnamomea*, *O. regalis*, *Polypodium medium*, *P. aureum*, *P. Phyllitis*, *Aerostichum purpureum*, *Woodwardia Virginica*, *W. Angustifolia*, *Pteris aquilina*, *Asplenium filix-foemina* and other ferns. Send 30 cts for illustrated descriptive catalogue and complete list of rare tropical and exotic plants.

BEASONS BROS.,
Royal Palm Nurseries, Manatee, Fla.

CONTRACTS made to furnish Violets for prices, stating quantity wanted. Also Coleus Freehand.

JOHN CURWEN, Jr.,
Villa Nova, P. O., Delaware Co., Pa.

NEW CARNATIONS,
PANSIES, ASTERS.

of extra quality for Florists, are our Specialties. Send for descriptive price list to

DENYS ZIRNGIEBEL,

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ROOTED CARNATION CUTTINGS

For Sale.

STRONG, HEALTHY STOCK.

PRES. DE GRAW AND LA PURITE

Pres. de Graw, the best long stem white carnation now grown, \$1.25 per 100, \$10.00 per 1,000.

C. B. HUMPHREY,

Walesville, Oneida Co., N. Y.

SELECT PLANTS.

Geranium, double and single, 100 varieties, \$ 4.00
Roses, Hybrid, strong, 2-inch, 5.00
Roses, Monthly, 5.00
Roses, Bennett's, The Bride, Am. Beauty, 15.00
Carnations, Hinge & White, best white, 4.00
Carnations, colored varieties, 4.00
Asparagus tenuissimus, 75 in., 3.00
Transplanted Pansies, choice, \$1.00 per 100, \$7.00 per 100. Send for Wholesale Price List: Just out.

A. GIDDINGS, DANVILLE, ILL.

IMPORTED PLANTS.

Special Notice! NOW IS THE TIME to forward orders for Spring Delivery of *Rhododendrons*, *Azalea Mollis* and *Ghent Dwarf Budded Roses*, *Tree Roses*, *Clematis*, *Aristolochias*, *Herbaceous Peonies*, etc., etc., from the

Boskoop, Holland, Nursery Association.

For Catalogues, address,

C. H. JOOSTEN,

AGENT FOR THE U. S.

3 Coenties Slip, NEW YORK.

Mr. Bennett states that this is the finest Rose he has yet raised AND UNSURPASSED AS A WINTER BLOOMER.

THE ROSE OF THE YEAR,

Henry Bennett's New Seedling Tea Rose,

PRINCESS BEATRICE.

"A vigorous grower with stiff, erect wood, thick, handsome foliage, and very free flowering. Flowers well carried on long, stiff stems; large, full and of the most perfect form; petals round, broad and very thick. Outside petals pale yellow, center rich golden yellow; edge of petals lightly laced with bright rose. Most distinct and handsome; a pure Tea. Received First Class Certificate of the Royal Horticultural Society, London, June 23, 1885."

Send for Price List. A beautiful colored lithograph for 25 cents, which amount purchasers may deduct from their first bill.

Mr. Bennett has appointed as sole agents for its sale in the United States and Canada,

HILL & CO., CRAIG & BRO.,

RICHMOND,

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49th and Market,

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Write them for particulars. Plants distributed on the same day both in England and America.

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Enclose 2-cent stamp for our new catalogue, containing Practical Hints on growing the "Queen of Flowers." Over 4000 fine plants to choose from.

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Of New, Rare and Beautiful Plants, for 1887, ready in January.

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The rich collection of fine foliage and other Greenhouse and Hothouse Plants are well grown and at low prices.

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All the leading forcing varieties. Contracts made now for delivery in May and June. Get your stock from our fine, healthy plants.

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NEW ASTERS.

Beautiful New and Striking Variety, "PEARL."

In two colors, Pure White and Bright Rose.

Each color per pkt., 25 cts., for 1,000 seeds \$1.50.

Pot plants of the above, in full bloom, were exhibited by Mr. Zirngiebel at the Florists Convention in Philadelphia last season, and were greatly admired by the members present.

WE HAVE OBTAINED HIS ENTIRE STOCK OF SEEDS, and offer it at the above low price.

Florists' Seeds a Specialty.

Aster, Zirngiebel's Double Pure White 10 ^{pkt. ounce.} 4.00

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"White, (own growing) 10 4.00

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"White, Our own growing from Chater's Prize 10 1.50

"Chrysanthemum Secutum grandiflorum, Large Single Yellow flowers 05 .75

SEND FOR CATALOGUE containing choice strains of Florists' flowers, and a fine assortment of Hardy Perennial flower seeds.

SCHLEGEL & FOTTLER.

26 S. Market St., BOSTON, MASS.

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FLORETS of Antwerp, Century, Grace Wilder, Chester Pride, Hulse's White and Field of Gold, mixed, about one-half long stems, \$1.50 per 100; to special colors or all long stems, \$2.00 per 100. Standing orders solicited. Telegraph orders will receive prompt attention.

PLANTS of above varieties out of 2 1/2 inch pots; prices given on application.

SEED of our own hybridization and crossings of above sorts, in packets of 30 to 40 seeds each, 25c., or 5 packets for \$1.00 by mail.

CHAS. T. STARR, Avondale, Chester Co., Pa.

PANSIES ONLY! The grandest collection ever offered, including ALL the latest NOVELTIES. Our Seed is warranted to be FINEST, PURE and strictly FIRST-CLASS. Sent for new Circular and Special Price List to the

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For Flower and Vegetable Seeds,

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Trade List of Orchids, Palms, Stove and
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Regular Shipments made every month from Mexico, Guatemala, Brazil, Columbia and Venezuela to U. S. A. and Europe.

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FINK & CO. CITY OF MEXICO.

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CARNATION, "Snowbound," per doz. \$1.00

VERBENA, Extra Stock, per 100 2.00

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Winter 't' Flowering : Plants

Roses, Carnations, Bouvardias, Swaney White Violets, new double White Daisy, Callas, Primulas, Auriculas, Cyclamens, etc.

A also fine assortment pot and field-grown, ever-blooming Roses, Geraniums and Verbenas, and general florist stock, at cheap rates, to make room.

CUT FLOWERS

in great variety the coming season.

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Verbena Cuttings Rooted.

20 varieties, per 1,000 \$7.00

Double Petunias (6 var.) per 100 4.00

Troy Leaf Geraniums (6 var.) 4.00

Mrs. Pollock Geraniums 4.00

Vines Major var. 4.00

Carnation (Buttercup) 6.00

Carnation, Rooted Cuttings (12 var.) 2.00

Per 100 \$5.

Correspondence solicited from Florists desiring large or small quantities of stock. Address

BRENNEMAN & PETERSON,

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The choicest old and new varieties at \$2.50 per 100, \$20.00 per 1,000. Rooted Cuttings, \$1.00 per 100, \$8.00 per 1,000. NO RUST OR MILDEW. Packed light, and satisfaction guaranteed.

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Mammouth set from Pots PER 100, PER 1000

Rooted Cuttings, \$4.00 \$20.00

General collection from pots, 3.00 25.00

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Geraniums, 4 to 6 and single. From pots 4.00

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Vetchin, fine plants, cut, pots, \$6.00 to \$8.00 per 100

Quinquetide, fine plants, cut, pots, \$8.00 per 100

CARNATIONS, ROOTED CUTTINGS.

Hulse's White, Peaches, Edwardian, Fortin, J. A.

Garfield, Mrs. Garfield, Philadelphia Hosiery.

\$2.00 per 100; \$15.00 per 1,000.

Fred Johnson, best pink, new, etc. per doz. Violets.

Rooted Cuttings, free from rust, 1.50 per 100, 2.50 per 1,000.

Trade list of roses and general florist stock on application.

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FINEST-LOOKING PLANTS, FREE FROM ALL DISEASES.

Select market sorts from pots \$2.50 per 100

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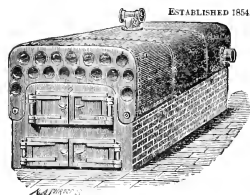
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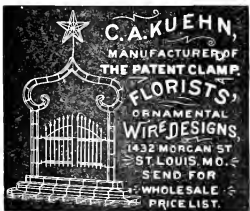
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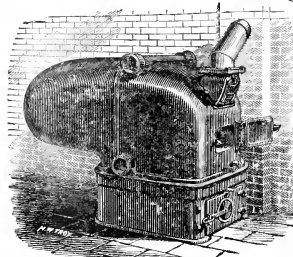
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Send 4 cents postage for Illustrated Catalogue.



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Patented Jan. 8, 1887.

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Flower Pots.

A large stock always on hand. Send for Price List.

MILLER & HUNT,

Wright's Grove, CHICAGO.

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No traveling salesman. Prices reduced on ten sizes of small pots, fench and under. Special low prices for large orders. Terms cash on arrival. If not known to us send references or cash with order. Samples mailed and special price quoted to every applicant, including freight and safe delivery.

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ships any distance safely and without delay. We prepay freight and deliver at prices one-fourth below other potteries, while our pots are as good as the best priced and perhaps better. Write for prices and compare them. No cure, no pay.

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For Parlor, Lawn and Cemeteries,
Including RESERVOIR, (Self Watering) VASES, TERRA
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SPHAGNUM MOSS,

Especially for Florist use. \$2 per bale. Post \$1.25 per bale. Short or Long moss, \$2 per bale. Other plants, a Wisconsin novelty, \$2 per doz.

Expressed in its season at lowest prices per bale or ton.

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Grind your own Bone,

Meal, Oyster Shells,
GRAHAM FLOUR, and Corn
in the \$5.00 HAND MILL.
Wilson's patent, 100 per cent
more made in every POULTRY

Also **POWER MILLS** and **FARM FEED MILLS**.
Circulars and Testimonials sent on application. **WILSON**
BROS., Easton, Pa. Mention the AMERICAN FLORIST.

CAKE STAKES.

Cheapest! Neatest! Most Durable!
From 6 to 12 feet long, in bundles of 500, ready for
sawing in desired lengths:

Price, per 1,000 \$5.00

Sample bundle of 100 - - - - - \$1.00

Each 1,000 will make from 4,000 to 5,000 pot stakes.

Ready to ship March 1.

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THE AMERICAN FLORIST



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Vol. II.

CHICAGO AND NEW YORK, APRIL 1, 1887.

No. 40.

THE AMERICAN FLORIST

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EASTERN OFFICE,
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general office at Chicago.

SOCIETY OF AMERICAN FLORISTS.—Robert
Craig, Philadelphia, Pres.; J. C. Vaughan, V.
Pres.; M. A. Hunt, Treas.; Edwin Lonsdale,
Chestnut Hill, Philadelphia, Secy. The third
annual meeting at Chicago, August 16, 17 and
18, 1887.

THE WEEKLY FLORIST.—For the past
three issues this subject has been open to
the votes of our readers, and while the
favorable replies are numerous, yet so far
as received, they would not justify the
change. We will still hold the question
open, for the FLORIST is not only able
but willing to come to the front in meet-
ing any wise demand for improvement.

SEVERAL valuable articles have been
crowded out of this issue by pressure of
news matter. We have in hand and can
promise our readers for April 15, the fol-
lowing: Spring-flowering plants, by W. A.
Manda; A visit to Bryn Mawr, Pa., by
J. W.; The Advantages of Horticultural
Exhibitions, by A. W. M., and a valuable
article on the culture of winter-flowering
heaths, with illustration.

Postage and Express Rates.

I have read in some paper to the effect
that the English "parcels post" would
deliver a parcel containing about one
cubic foot, and of average weight, to its
address in Australia for 60 cent, which is
about what it would cost to send it to the
next town in the United States. As is
well known, we are behind most of the
world in this matter of cheap postage.
Concerted action of florists had much to
do with preventing an increase of post-
age upon their specialties, and it is possi-
ble that such action might effect a reduc-
tion.

If the appeal to the express company's,
proposed by Mr. Hill, should fail, perhaps
it would be well to try for reduced post-
age. The knowledge that such an at-
tempt would be the alternative might
help bring the express companies to reason;
for they would certainly lose much
by a material reduction in the postage
upon packages, while on the other hand,
it is in accordance with precedent that
they would gain by reducing express
charges upon a business that is rapidly
increasing. L. W.



For Cut Flowers.

BY F. G.

II.

In the preceding paper, I enumer-
ated a dozen orchids which I strongly re-
commended for cut flowers; they were se-
lected from long experience in their culture,
and placed first for the reason that all of
them can be bought cheaply and in quan-
tity. They grow and flower freely, and
with perhaps the exception of the odontoglossums,
are suitable for the houses
usually at the disposal of the average florist.
If more variety is needed a good selec-
tion can be made from the following good
varieties. In point of excellence, I would
place *Vanda carulea* first; it can be
bought comparatively reasonable, and
generally in a very healthy condition.
It will succeed admirably, treated the
same as *Lælia anceps*, but will not stand
so much exposure to strong sunlight as
the leaves are more tender than the fore-
going, neither will it stand too much
drying, having no bulbs or reservoirs of
sap to draw upon. It matters little what
potting material is used, provided water
can get through it quickly. If a good
many are grown, I would put them in
pots and place them thinly on a bench
that is covered three to four inches deep
with ashes or gravel; do not disturb
them, and in one year the bench will be
a network of roots. All the *vanda* and
arides section like this treatment, and it
is surprising what progress they will
make after their roots get loose and be-
gin to ramble. Watering the shelf occa-
sionally with liquid manure will give the
leaves a deep green color. *Vanda Saude-
riana* will make a grand orchid for the
florist who requires something out of the
common. It proves to be an easy one to
grow, and more free blooming than its
congeners, very small plants producing
a couple of spikes with five to six flowers
apiece; it requires more heat than the
foregoing.

Among the cypripediums, *Spicerianum*,
were it plentiful and cheap, would un-
doubtedly stand first in its usefulness
to florists. It grows rapidly in a very warm
house, potted in light peaty soil mixed
with moss, and like all the cypripeds,
requires abundance of water at all times.
This species appears to seed more freely
than the majority of its kind; the seed-
lings grown rapidly, will make good-
sized flowering plants in five years. An-
other good species is *villosum*, requiring

much the same treatment as *insigne*;
but comes into flower much later. Re-
ferring again to the genus *Lælia*, I find
two more useful kinds that would be
adapted for florists' purposes, one is *L.*
autumnalis, a fine orchid in every re-
spect; but its perfume is so disagreeable
that I could not place it in the same rank
with *anceps* or *albida*, but to many this
may not be considered a detraction. Its
treatment should be the same as recom-
mended for *anceps*, and the results will
be found highly satisfactory. The other
species is *harpophylla*, a comparatively
new orchid, but has been offered in large
quantities during the past two years. Its
flowers are of a bright orange scarlet,
a somewhat unusual color in this family,
rendering it a very showy and effective
kind for decorations. It does well where
given the same treatment as *C. Trama-*
As *trips* are very fond of this species.
I would advise as small a pot as possible,
using very little potting material, as then
the plants can be watered overhead con-
stantly. *Cecelogyne ocellata* is a some-
what old kind, but only recently to be
had plentifully. The flowers are not so
large as the better known *cristata*, but is,
I think, prettier, and does not have that
wilted look. It is the equal of *cristata*
in growing and flowering, and may be ac-
corded the same treatment. There ap-
pears to be but two varieties, one flowering
in early winter and the other in early
spring.

Zygopetalum Mackayii is a fine old
species and when well grown will give
two spikes of a dozen flowers apiece to
each growth. It lasts a long time in
bloom, and the fine bold spikes are very
useful in large decorations. It does well
in a mixture of tufty loam and peat, well
drained, with a liberal allowance of liquid
manure when forming bulbs, and treated
generally as a stove plant. Among the
oncidiums I would select *varicosum* and
tigrinum, both of which are plentiful and
reasonable. Their prevailing color is a
bright yellow, rendering them very effec-
tive in bouquets, baskets and general
decorations; *tigrinum* is also very frag-
rant; *varicosum* does best on blocks of
wood hung up in a light, airy house; a
roschouse would suit them in summer, if
somewhat shaded, returning them to a
cooler house for the winter. The same
conditions will suit *tigrinum*, but I think
it does better in pots or baskets.

It is with some temerity that I venture
to add *Phalenopsis Schilleriana*, *ama-
bilis*, or *grandiflora* to the list, for they
are without doubt very fickle plants to
handle, especially to a florist who gener-
ally has too little spare time. Still, they
will repay a little extra trouble, and their
panicles of flowers surpass in beauty and
grace any other of the whole family;
they are unusually free bloomers, and
that they can be grown well is proved in
many orchid establishments, and under

at least a half dozen different modes of treatment, showing that they are more accommodating than usually is credited to them; also the fallacy of arbitrarily laying down rules for the treatment of these plants. I find the phalaenopsis do equally well in suspended pans or baskets, in pots, or rafts of wood. The potting material may consist wholly of moss, peat, or a mixture of both. Though they do very well when fastened to bare blocks of wood, but they then require more attention. Abundance of water



CYMBIDIUM EBURNEUM

should be given them, but the quantity must be regulated to the style of potting, those well packed with moss may not want watering more than twice a week, whereas the bare blocks may need hosing twice a day. For a florist I would recommend the block system, though the plants by no means make such luxuriant foliage. They will by this system be more thoroughly ripened, and may be relied upon to come through the winter without spot. Phalaenopsis like plenty of light; but do not expose them to strong sunlight; abundance of air should be given them at all times if the requisite heat can be maintained. With plenty of air and moisture, a temperature above 100° in the growing season will by no means hurt them; if the leaves are thoroughly well ripened by air and light before winter sets in, no spot need ever be seen. Respecting the temperature in winter, one must be guided largely by the weather, a minimum of 60° and maximum of 75° will winter them nicely, but it would be foolish to dry the sap out of the leaves in trying to maintain these figures with the outside thermometer 20° below zero; at these times a minimum of 35° will do no harm for a few nights, always providing that the plants are dry. The foregoing are all I care to recommend a florist to invest in at present. There are some few other species that are as good as those I have mentioned, but are not plentiful enough yet.

In conclusion, I may add, I feel sure orchids judiciously selected and properly grown will return a handsome profit on the investment, with no more trouble or cost than in growing other plants, and if sold reasonably, a ready market will always be found for the flowers, and with orchids, the florist has the advantage of six to twelve weeks in which to sell the flowers after they have opened.

A STRIKING feature of the many reports of the late orchid exhibition in daily and weekly papers of the New York press has been their high tone. Slang and orchids do not combine, and this the ordinary reporter intuitively comprehended.

The Orchid Show at New York.

Having been present at Messrs. Siebrecht & Wadley's exhibition of orchids, I can endorse all that Miss Emily Taplin writes concerning it. The show was a grand success in every way.

Nearly all of the persons viewing this exhibition would utterly fail to comprehend the difficulties in the way of successfully engineering an undertaking of this kind to a prosperous issue, and it is only those who have had some experience of it like that can fully appreciate the credit due to originators of the show. In the first place it must have required courage of no ordinary kind to move large specimen palms from a distance during such weather as was then experienced. And these plants were specimens such as are seldom seen away from a greenhouse. Immense latanias, arecas, phoenix, rhaps, aggregating in value many hundred dollars, were grouped around in lavish profusion. When we think of the packing that such plants must require to protect them from the cold at that time of the year, we can indeed praise the perseverance that conquers the difficulty. For these plants to remain over a week in a badly-ventilated and poorly-lighted hall will certainly leave them in a not very flourishing condition, and the loss thus incurred would surely deter many men from engaging in anything of the kind. All credit, then, to those who were willing to take the chances. Only by a combination of fortuitous circumstances can such an exhibition ever be undertaken with any degree of success, and it is probably safe to say that no other firm in this section of the country could have piloted the scheme so well. Their own orchids number several thousands, and as they command the cutting of another most extensive collection, the chances were in their favor.

Perhaps never before were so many orchid flowers grouped together, and to those who have not kept themselves acquainted with the many new varieties constantly being found and raised, this opportunity for increasing their knowledge was a good one. Some idea may be gained of the ever-increasing varieties of some species when it is stated that of several hundred flowers of Cattleya Trianae here exhibited, some variation in the coloring and marking could be noticed in almost each one. The same may be said of Lycaste Skinneri. With odontoglossum the fact may also be noted. As these species are imported from their native habitats in large quantities, with every importation some distinct type may be found.

Of cypripediums an endless variety was shown. Many of these were hybrids and required to be seen for their beauty to be appreciated. As I am specially interested in the subject of these and other orchid flowers for florists' work, a few of the cypripediums I noticed as being very applicable for this purpose. But, alas! when we stop to consider the price of these rare gems we are sure that many years must elapse before they will ever be so plentiful as to be grown for the purpose of cut flowers. To those interested in this subject I would strongly recommend Cypripedium Spicerianum. The price for this still almost too high to warrant the buying of many plants, but all who know it will bear me out in saying that it ought to be in every florist's collection. C. Maulei is an improved C. insignis, in fact, so much better that if ever it is to be had in quantity, poor old insignis will be relegated to the rear. Some varieties of C. barbatum would be extremely useful as cut flowers, and though at present they are beyond

our reach, the time will arrive when they will be more generally distributed and their beautiful flowers may be offered for sale.

One plant only of Cymbidium eburneum was exhibited. It would be impossible to accord too much praise to this chaste and noble flower. The flowers are borne before erect spikes, sometimes seven inches in length; the color is white, with a little marking of yellow upon the lip. The flowers last a long time before fading. One plant, also, of Cymbidium Lowianum was present. This, though equally to be desired with C. eburneum, is of an entirely different appearance. The flowers are born upon long, branching spikes, often numbering eighteen upon one spike; the color is peculiar but sure to attract. Both of these cymbidiums have evergreen foliage, and both look well at any time. Mr. Williams, in his Orchid Grower's manual, recommends growing cymbidiums in the East India house; but those that grow these plants cool, in a temperature not exceeding 50° at night through the winter and correspondingly cool in the summer, find that the results as to flowers are much more satisfactory than when the plants are placed in heat.

By far the largest number of orchid plants came from Messrs. Siebrecht & Wadley. Mr. Jas. R. Pitcher, of Montview, N. J., showed his interest in orchids by exhibiting quite a nice little lot of plants, which showed evidence of care and skill. Mr. Kimball's collection of orchid flowers was an exceedingly fine one; more species and varieties were shown by him than by any one else. Both of these gentlemen deserve credit for the zeal which they manifest in all pertaining to the welfare of orchids.

It is to be hoped that this exhibition will be but the forerunner of many others; and that, in the future, as interest

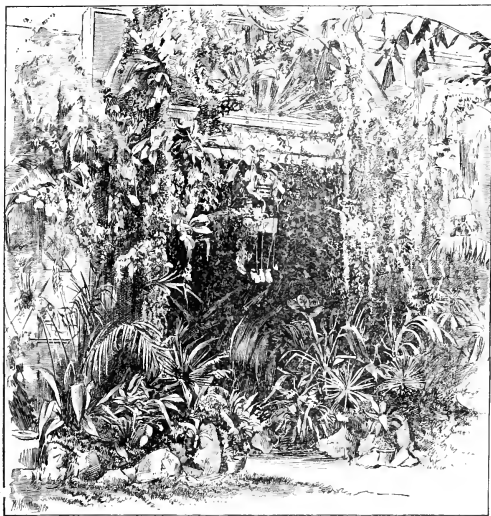


VIEWED AT THE LATE ORCHID SHOW
BY J. R. PITCHER'S EXHIBIT.

in these plants grow, many who this time were not willing to participate, may become equally enthusiastic and willing to assist in endeavoring to increase a love for orchids and a desire for their more general cultivation. That such exhibitions are teachers of the general public no one can deny; for, to hear the comments of many of the visitors, one would imagine that, to the large majority of the American people, orchids are as strange and anomalous as the relics of some bygone age. A. E. W.

Scenes From the Orchid Show.

The representation of the cave which occupied the end of the winter garden of the Eden Musee, shows the intermingling



SKETCHES AT THE ORCHID SHOW—THE CAVE.

of foliage which completely shrouded the exterior walls. There were oaks draped with Cape smilax, which was also dripping with mosses, that hung in soft, lacy veils over tangled beds of tropical growth. Inside the cave aquatic plants sprung from the rocks and were limp and glossy from the spray of the fountain. The walls were hung with nepenthes of many varieties. Mr. Siebrecht's collection of pitcher plants excelling any in this section of the country. The distribution of orchid plants in the vicinity of the cave was most tasteful, this being the most effective point when they were shown in their natural condition.

The "Pitcher corner" is pictured in the smaller cut. Mr. James K. Pitcher's beautiful orchid collection from Short Hills, N. J., were admirably placed in a corner, where an oak tree bent forward over a bank of splendid bloom. Not over a dozen varieties were here exposed, but these were choice and were handsomely distributed among fine foliage and nepenthes.

B.

The Massachusetts Horticultural Society Exhibition.

The annual spring exhibition of the Mass. Hort. society, opened on Wednesday, March 23, continuing three days. The weather on the opening day, unfortunately, was decidedly "March," blustering and freezing, and the moving of plants was a serious undertaking; but in spite of this drawback, both halls were well filled with a most beautiful and successful display. In many respects, this is the most interesting show of the year. It occurs at that season when flowers and foliage are most acceptable to the eye,

after months of dreary winter, and comprises those varieties which so pleasantly indicate the near approach of spring. The general arrangement of the exhibits was different from that of last year or of any previous exhibition, and the changes were, in most cases, decidedly improvements. The displays of spring flowering bulbs, instead of being shown on low, rectangular plateaus, were arranged about the sides of the upper hall, on terraced tables, with projecting bays and curves, giving a pleasing outline and charming effect. The center and ends of the hall were reserved mainly for the azaleas, orchids, cinerarias, etc. The display of narcissi was somewhat smaller than that of last year; the same is true of the azaleas; the severity of the weather, no doubt, prevented many from moving their azaleas from the greenhouses, and many spring flowering bulbs, which were intended for this show, were just a few days too late in blooming; the result also of the bleak and unseasonable weather. Hyacinths were good, and the orchids were better than any before.

The uniform excellence of almost everything shown was particularly noticeable, though the general effect, as a whole, might have been materially improved by heavier masses of green and foliage, particularly in the back-grounds. The absence of the massive palms, anthuriums and other tropical-foliaged plants, which are such a grand feature of the other exhibitions of this society, was seriously felt at the spring show. This cannot well be avoided, on account of the expense and risk of moving such plants at this time of the year, but we have good laurels, firs, and other hardy evergreens which might be obtained and used to great ad-

vantage at such a time, and a generous use of these would give that breadth and massiveness of back-ground which is needed to suitably set off a display of small flowering plants, particularly in a large and lofty exhibition hall.

The principal displays of spring flowering bulbs in competition for the premiums of the society and the medals offered by the "General Union of Holland" were made by C. M. Hovey, C. H. Hovey and Wm. Martin. The pans of hyacinths shown by Wm. Martin were fine, one pan of "King of the Blues" being especially good. The pans shown by C. M. Hovey were also good, "Fabiola," "Gr. due de Luxembourg" and "La Grandesse" deserving special mention. C. A. Hovey's collection of hyacinths in pots was exceedingly good, and the arrangement of colors pleasing. The same is true of the collection of narcissi, from the same gentleman. It contained a number of well grown specimens of *N. Horsfieldii*, one of the best varieties. A good collection of amaryllises was shown by C. M. Hovey. Mr. Martin's violets in pots were the best ever seen here; the size of the flowers, especially those of Swanley White, was remarkable. Mr. Martin also contributed some large and fine azalea plants. R. Blair showed a set of good herbaceous calceolarias and hybrid primroses. A collection of hybrid primroses and auriculas, shown by Edw. Fewkes & Son, was noticeable for fine colors and markings; and one of the most beautiful plants in the hall was an *Iris susiana*, bearing superb flowers, exhibited by the same party.

The only competitors for the cyclamen premiums were E. Sheppard & Son and Thomas P. Clark. Mr. Clark exhibited a plant seldom seen here, *Lomatia elegantissima*, the foliage of which is very delicate and beautiful. An attractive display of thirty neat and well bloomed azaleas in the center of the hall came from A. W. Blake. The best single plant of cineraria came from Wm. Martin; it was a gorgeous mass of bloom, bright magenta in color. The collections of cinerarias from Thos. Greaves, C. M. Hovey and E. Sheppard & Sons were all exceptionally good. Mr. Sheppard's plants, although the smallest in size, excelled in form, variety and color of the flowers. One variety shown by Mr. Greaves bearing saucer-shaped flowers, white, bordered with red, was very fine.

In the department allotted to roses there were a number of attractions. C. F. Evans, of Philadelphia, exhibited a plant and cut flowers of his new rose, "Puritan," and was awarded the society's silver medal for the same. From J. Henderson, of Flushing, came a vase of "Papa Gontier" buds which were, as usual, very good; a silver medal was awarded to this rose also. A vase of mammoth Cornelia Cook roses from Norton Bros. showed that the Messrs. Norton cannot be excelled in the culture of this variety. Extra good specimens of Baroness Rothschild, Merville de Lyon, Gabrielle Lutzet and other hybrids, also a general assortment of tea roses were shown by the same firm. Samuel Neil contributed some good teas, also E. Sheppard & Sons, Mrs. F. B. Hayes, Thos. H. Meade a variety of hybrids. An old friend—the beautiful Climbing Devonensis, was shown by C. M. Hovey. The best Bennetts ever seen here were exhibited by Fred Palmer; in Mr. Palmer's collection was a new seedling, yellow carnation named "Princess." Another yellow seedling of merit, unnamed as yet, came from John Walsh.

Mr. D. Zirngiebel made his usual display of new carnations, including fifteen choice varieties. A vase of the new carnation, "E. G. Hill," was contributed by Peter Hall.

The collection of orchids exhibited by David Allan was arranged with elegant taste, as his exhibits always are. His plants of *Dendrobium Wardianum* are without doubt the finest ever seen, either naturally or in cultivation. A great mound of *Celogyne cristata*, Chatsworth variety, bearing about seventy-five spikes of flowers, formed a fitting center piece to his display. Other notably well-grown specimens in his collection were *Cattleya Warscewiczii* delicata, *Laelia anceps Veitchii*, *Phalenopsis Schilleriana* and several good varieties of *Cattleya Trianae*.

Wm. Robinson, gardener to F. L. Ames, can always be counted upon for a large collection of rare orchids. His display this time contained upwards of thirty

groups, with the pots hidden by mosses and lichens with a few rocks interspersed was very natural and pleasing. No such display of this class of plants was ever before made in this country. There is much to be learned from studying it, and many florists would be surprised on looking it over to see how many beautiful plants and desirable flowers there are which would be valuable to the commercial florists, but as yet one unknown to them. Some of the *andromedas*, *triliums*, *primulas*, etc., are exceedingly fine. There is no more desirable plant for general use, for cut flowers, for greenhouse decoration or home culture than *Primula obconica* which was illustrated in these columns a year ago. Equally good for cut flowers is *Doronicum Caucasicum*, which is earnestly recommended to those who desire a fine yellow flower, easily and cheaply grown, and bound to become popular.

Prize Silver Vase.

We present herewith an illustration of the handsome silver vase, value \$150, which has been presented to the N. Y. Hort. society by Pres. T. J. Spaulding, to be awarded to the exhibitor of the most original and tastefully arranged floral piece suitable for a wedding or reception, at the spring exhibition of the society, to be held April 26, 27, 28. It is hoped that such a handsome and valuable prize will incite strong competition and result in an exhibition of some really elegant and original work in this line.

The Hyacinth, Tulip and Rose Show at Philadelphia.

It is a pleasure to have the opportunity of chronicling so successful an exhibition as was held in Philadelphia March 15 and 16.

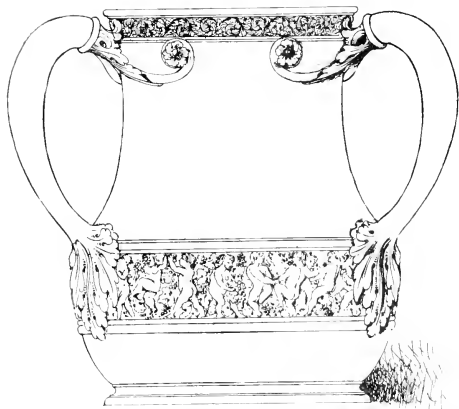
The medals, which were offered by "The General Union of Holland for the Promotion of the Cultivation of Bulbs," were briskly competed for; especially the gold medal. Eight entries of "fifty hyacinths in bloom, not more than two of a kind," were recorded, though only six came up to the scratch at the appointed day. The judges had difficulty in deciding which collection was entitled to the much-coveted prize, but after considerable deliberation between the collections placed on exhibition by Mr. John Shaw, gardener to Clarence H. Clark, Esq., and Mr. C. Eisele, a florist, it was decided in favor of the former, on account of the superior skill displayed in staging that collection, though nine-tenths of the men in the trade asserted that the latter collection was superior in some other respects; notably, the flowers averaged larger, and there was a luxuriance of growth which the plants of the prize winner did not possess. There is a lesson here; if Mr. Eisele had spent the same time and judgment in the tying and arranging of his plants, he would have been awarded the gold medal.

The prize medal for tulips was awarded to Mr. John M. Hughes, gardener to George W. Childs, Esq. It is a surprise that more tulips were not on the exhibition tables; they are certainly more showy than hyacinths. Had the same number of tulips been exhibited as there were of hyacinths, they would have attracted more attention.

A better display of roses has not been seen in this city; the Philadelphiaans surprised even themselves. The reason may be attributed to the new departure in offering premiums. Heretofore, the plan followed has been to offer a premium for the best collection; this, of course, precluded any but the large growers from competing, while now every grower has a chance, no matter how small. As the schedule is now arranged, for best six Niphetos, a first premium of \$2 is awarded; second, \$1, for *Mermets*, first, \$5, second, \$3, and so on through the list. There were some roses shown that were not on the schedule, amongst which were *Puritan*, *Meteor*, Mrs. John Laing and *Md. Gabrielle Luizet*.

Mr. H. A. Dreer had a seedling rose on exhibition which attracted considerable attention, on account of its similarity in color to Mrs. J. Laing, and its larger, well shaped flowers. Its origin is in doubt, and anything said about it, outside of those connected with Dreer's establishment, would be the merest guesswork. We will hear more about it later. A collection of orchids from Dreer's was an interesting feature of the display.

A plateau of living, growing plants, arranged by Messrs. Pennock Bros. di-



PRIZE SILVER VASE

varieties, many of them large plants and rare specimens. Among the best of these were *Dendrobium splendidissima*, a perfect mass of bloom, *Cymbidium Lowianum* bearing a spike six feet long, *Dendrobium fimbriatum oculatum*, *D. nobile nobiliss.*, *Cypripedium Lecaeanum superbum*, (hybrid), *C. Lindeni*, *Cattleya amethystoglossa*, *Ada aurantiaca*, *Angreecum Leone*, a good variety of *Vanda tricolor* and a number of fine *odontoglossums*. Thos. Greaves had an unusually well-flowered specimen of *Odontoglossum Rossii majus*, and some good *odontoglossums* of other varieties, and *phalenopsis*. In S. R. Payson's collection were good plants of *Laelia superbiens*, *Dendrochilum glumacum*, *Dendrobium macrophilla* and *Cymbidium Lowianum*. Ben. Grey showed twelve distinct varieties of *Lycaste Skimier*.

The main attraction in the lower hall was a bed of hardy herbaceous plants in flower, contributed by W. A. Manda, of the Botanic garden. Too much cannot be said in praise of this feature. The arrangement of the plants in banks and

Mr. Manda was awarded a silver medal for the artistic arrangement of his exhibit.

POINTS.

Many visitors from other states were present, and, of course, were appropriately entertained by the florists of the "Hulk." This is a good idea. The florists should travel more and get out of the ruts.

E. Sheppard, who has been suffering from a broken wrist, made his appearance at the show and was congratulated by his many friends on his progress toward recovery.

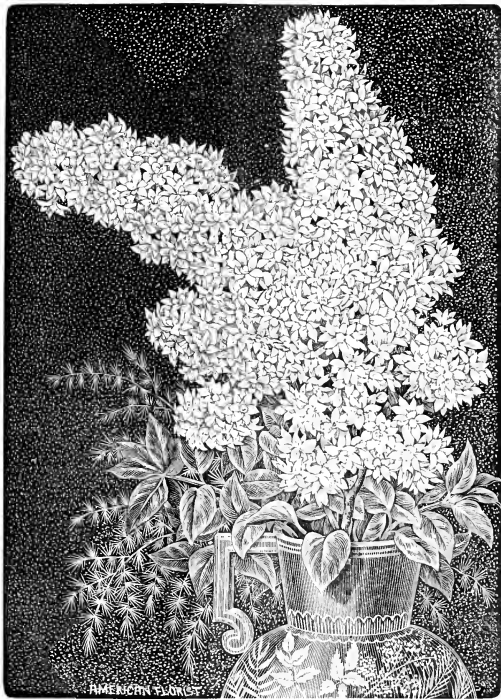
Mr. Blake's display of azaleas would have looked much better without the palm which was placed in the center of the group.

"The *Dendrobium nobile*, which is a very pretty specimen in the Ames collection, has not been seen here before."—*Morning Journal*.

"Wm Francis Bennett, of the Clyde Conservatory, also shows a new rose named after himself."—*Daily Advertiser*.

The reporters are at it again.

WM. J. STEWART.



SYRINGA VULGARIS. PL. FL. LEMOINE.

vided the honors with the orchids, hyacinths, tulips and roses in the attention attracted; they were those innocent, modest little flowering plants known as English primroses. They had been grown in 3-inch pots, and were in proper condition to bed in moss, for table or other decoration. We will hear more about these plants within the next few years. A few seedling carnations from Lonsdale & Burton were most admired; they appeared to be improvements on Philadelphia's favorite—"Grace Wilder." If they prove to possess more vigor than that well known variety, they will be welcome additions. Mr. John Henderson sent some fine examples of the rose, Papa Goutier, as did also Mr. John N. May, of the Bride. Both these roses have caught on in this city, and will be grown in large quantities for next winter. C. F. Evans, Craig & Bro., W. W. Coles, John M. Hughes and Lonsdale & Burton, each had fine collections of roses for competition. A very pretty specimen of Bougainvillea spectabilis was shown by Mr. S. Parker Shortridge.

The medals offered by the General Union of Holland were awarded as follows:

Hyacinths, fifty specimens, gold medal, to John Shaw, gardener for Mr. Clarence Clark, silver gilt medal to Cristian Eisele, silver medal, to John M. Hughes, gardener for Mr. George W. Childs. Tulips, twenty-five distinct varieties, silver gilt medal to John M. Hughes Polyanthus narcissus, first premium to John M. Hughes.

The premiums offered by the Horticultural society were distributed as follows:

Hyacinths, twenty-five specimens, first premium to John Shaw; second, to Christian Eisele. Hyacinths, twelve specimens, first, to William K. Harris; second, to John Shaw. Tulips, six specimens, first, to John Shaw; second, to John M. Hughes. White Azalea, first, to John Shaw. Colored Azalea, first, to Pennock Bros., second, to John Shaw.

Cut roses, six specimens each. Perles des Jardin, first premium, to Craig & Bro.; second, to Charles F. Evans; Niphotes, first, to Craig & Bro.; second, to Charles F. Evans. The Bride, first, to Charles F. Evans, second, to Lonsdale & Burton. Bennett, first premium, to Charles F. Evans, second, to Lonsdale & Burton; Papa Goutier, first premium, to John Henderson. Flushing, L. T. Sunset, first, to Lonsdale & Burton; second, to Craig & Bro.; American Beauty, first, to Lonsdale & Burton; second, to Craig & Bro.; La France, first, to Charles F. Evans, second, to Lonsdale & Burton; Madam Cusin, first, to Lonsdale & Burton; second, to Charles F. Evans; Catherine Mermet, first, to Lonsdale & Burton; second, to Charles

F. Evans; Bon Silene, first, to Lonsdale & Burton; second, to John M. Hughes; Madame Gabriel Lucret, special premium, to Lonsdale & Burton. Whole collection of roses, to Charles F. Evans, special mention.

Lachnalia pendula, special premium to John M. Hughes. Chinese primrose, special to John M. Hughes. Plateau of English primroses, and cowslips, special premium to Pennock Bros. Seedling carnations, special premium to Lonsdale & Burton. New double dwarf sweet alyssum, special premium to John Stewart, Wilmington. Collection of orchids, special premium to J. A. Dreer. Polyanthus narcissus, first premium, to John Shaw. Lilium candidum, first, to William K. Harris. Single specimen lily, first, to William K. Harris. Lily of the valley, second, to John Shaw. L.

Double Lilac.

Our handsome illustration on this page is from a photograph furnished us by Mr. V. Lemoine, Nancy, France, who says: "Two plants of this beautiful variety were forced in a stove house, and each bore about thirty clusters of flowers, making a lovely sight. I presume that this variety will, when better known, become a great favorite, not only for out of door culture but also for forcing for cut-flowers during the whole winter."

Violets.

We have grown the "Marie Louise" and "Swanley White," quite extensively for two years on the following plan, and have never yet been troubled with disease: We bed out in the spring as early as the ground will allow, from the 15th of April to the 1st of May, so that the plant may become well established before the drought of summer. We use a light, rich, clay loam, well drained; a soil that would raise a good crop of corn, potatoes or any far product, never using the same place two years in succession. We follow the same plan with verbenas, carnations and quite a number of other plants. With us space is not much of a desideratum, and we plant our garden so that we can tend it largely with a horse and plough.

We propagate our violets altogether in the fall of the year and from plants bedded out as we have described. The best time for propagation is from the 1st to the 15th of October, so that the young plants may make some growth before winter. If the plants are not trimmed during the summer they will grow to an immense size, and 100 of them will make, by division, fully 5,000 cuttings. But when taking up plants for shipping, we find them so large that, of necessity, they require trimming, and in that manner we obtain a great many cuttings. We never use anything except a rooted cutting, which we put in a 2-inch pot and in soil suitable for roses. They are then placed in a cold frame, and shaded for a few days, until growth begins. During the winter season we place in a cold house which we keep at a temperature between 40° and the freezing point.

A much cheaper method, and one nearly as good, is to leave them in the cold frame, where the protection of a sash is usually sufficient until Christmas. In the excessive cold of mid-winter cover the frames with straw, which need not be taken off until the weather is sufficiently warm to insure a thaw of several days' duration. In the warmer, sunshiny days of February, it is best to remove the straw, putting it on again when there is any danger of the plants freezing.

We have never yet forced violets, but by treating them as we do the young plants have given a splendid crop of bloom, beginning the 1st of February and lasting three months.

Newa, Ohio. WM. BONNER

The Progress of Commercial Floriculture.

BY W. J. STENWIRE,
(*con. Indol.*)

The difference between the varieties called for here, and in England, is seen by consulting the prices current as published in the English periodicals. There we see quoted tea, colored, red French Safrano roses, tropaeolums, primulas, poinsettias, jasmine, gardenias, abutilons, conflowers, pyrethrums, pelargoniums, etc. So much for fashion. A wholesale dealer who would offer that list as his stock in trade would starve here.

The extent of the cut-flower, and kindred industries, is much greater than is generally imagined. I have corresponded with such people as Peter Henderson, John N. May, August Kolker & Sons, W. S. Allen and J. C. Vaughan, with a view of compiling some estimates which would be approximately reliable, but the figures received vary so much that it is difficult to arrive at a satisfactory conclusion. The importation of hilly of the valley amounts to several millions of roots annually, the growing of these roots for this market being quite an industry abroad. The consumption of cut tulips alone certainly amounts to many thousands daily during the winter season, and the number of Roman hyacinths grown is simply enormous. Cut flowers amounting to one million dollars in value, at wholesale prices, pass through the hands of commission dealers annually, and the amount sold by growers for the market, outside of the commission dealers, must be as large if not larger. From \$15,000 to \$20,000 is invested annually in plants of new varieties of roses. Mr. Thorpe estimates that there are 630 acres of ground covered with glass in this country, about one-half of which is devoted to the growing of plants, and one half to the production of cut flowers. There are probably not less than 15,000 individuals engaged in growing plants, for sale or for cut-flowers, and in florists' stores. Not less than 50,000,000 plants are sold annually, and the importation of bulbs and plants must amount to nearly if not quite \$500,000 in value. Tuberoses, bulbs, which we formerly imported, we now export in large quantities, and the exportation of pampas plumes has also grown to be quite a large business. One and a half millions of plumes is probably a low estimate.

But these figures give little idea of the amount of business, or the number of people which are directly or indirectly dependent upon the cut-flower trade. Consider the material used in constructing greenhouses, such as glass, iron pipe and fittings, hot-water boilers and steam apparatus, the labor employed and the money invested in the manufacture of plain and fancy flower-pots, rubber hose, fertilizers, insect exterminators and horticultural tools of all kinds, also the capital invested and the number of people employed in the making of ornamental baskets, and the value of baskets of foreign manufacture, wheat, immortelles, etc., which are imported annually. One estimate places the value of coal consumed at nearly \$200,000. Tons of iron are made into wire and wire designs for florists' use; many thousands of pounds of tin-foil, also cords of wood in the form of tooth-picks for stemming flowers and in plant stakes, are items of considerable account; while the rents paid for stores, and the money paid in wages to help of both sexes, must be a large sum. Enormous quantities of moss, wild ferns,

ground pine, laurel branches, etc., are gathered in the woods every year, this one industry giving continuous employment to many people in the country. The Boston market alone consumes annually 2,000,000 wild ferns, 2,000 barrels of moss, four to five tons of ground pine, and 20,000 yards of laurel festoons. These figures are for regular florists' demands, and do not take into consideration the Christmas trade in greens, which of course is very large. Neither must we forget the large sums spent in illustrated catalogues, many of which are really works of art, and the postage paid on the same. We should not overlook the educating influence of the illustrations in such publications, which are generally true to nature, with the result that the average flower painter or engraver of to-day knows better than to sketch lilies with five petals, and need not be told that lilies of the valley do not branch or that morning glories do not bear tendrils. The general knowledge of varieties in floriculture and of their habits and characteristics, which a florist finds now-a-days among his customers, is very gratifying and is significant, showing as it does the educating influence which has been at work, a result which is due largely to the enterprise and liberality of the commercial florists, who have placed the choicest productions of nature's handiwork within the reach of everyone, no matter how poor.

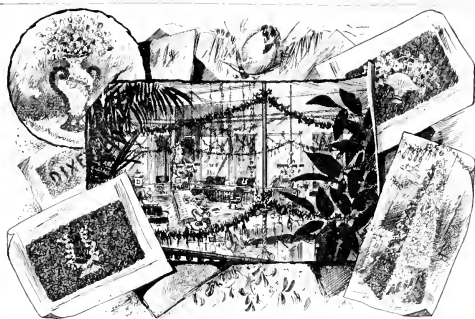
What a wealth of beauty is displayed in the florists' windows to-day. The old stories are used to read in our younger days of the poor city children who had never seen a green field, a rose or a dandelion, can no longer do duty. The situation has indeed changed; and rosebuds, violets, sweet peas and daffodils, are now as familiar to the eyes of the children of the street as they ever appeared to the most fortunate of their country cousins.

Is it surprising that horticultural exhibitions, pure and simple, appear to be losing ground? The time when people would crowd into a hall and gaze with open-mouthed wonder on a table covered with dishes of pears, and radishes, and apples, or rows of bottles filled with a variety of flowers, is past and gone. Commercial floriculture gives the people a free exhibition every day throughout the winter in the florists' windows on Tremont street, which in the horticultural exhibitions of a few years ago was never dreamed of. The same is true of fruit. Italian fruit-stands on street corners, with their load of strawberries in April and May, and of peaches and watermelons in July, would have been worthy of an admission fee twenty-five years ago. Even the orchid, as a rare novelty has seen its best days. The commercial florists have their eye on the orchid, and it is doomed. It will not long be the flower of the few.

Not all of the work done by the florist is now to be seen in the direction of art or good taste. We have all seen floral decorations, so-called, which were nothing but hideous monstrosities, and such things have given to many a strong foundation for wholesale denunciation of the whole business. Flowers have been made to do duty in the manufacture of freight cars, chopping blocks, teapots, bedsteads, shovels, lambs that could not be distinguished from Berkshire pigs, doves that would as readily pass for hens, and a host of other abominations. This is one feature of the progress of commercial floriculture which we may well deplore. But the best way to remedy this state of affairs is to educate the public to

a higher appreciation of work that is really artistic, for so long as people will demand such things, and are willing to pay for them, of course the florists must supply them. Not all floral designs are monstrous, and many even that are formal can be made beautiful in the hands of a true artist. Here is the opening for the successful horticultural exhibition of the future. At the recent orchid show held in New York, the most noticeable feature, and that which went farthest toward making it a success was the manner in which the grouping was done. Everything was arranged with an eye to artistic effect, so that altogether it made one perfect and harmonious whole. Luxuriant banks of ferns filled the shady corners, while beautiful pitcher plants hung above; orchids, which grew naturally in the air, were attached to old mossy branches overhead, while under the shade of palms and tree ferns whole colonies of cypripediums peeped forth from verdant banks. It was such a picture as no one could think of going back to the old style of exhibition where each contributor sets up his own row, and the result is a lot of loose ends and detached groups without harmony or system, and what might otherwise be a grand and beautiful display is completely spoiled for a lack of comprehensive plan and a master hand to carry it out.

Within the past three years a remarkable movement has taken place among the florists. They have not only a national society, which is already a magnificent organization, but they are uniting in different cities all over the country into florists' clubs, so called. What is the cause of these simultaneous movements? And what will be the result? I think the cause is principally that the commercial florists find that the horticultural and agricultural societies and similar organizations, from their very composition and nature, cannot adequately represent or serve the best interests of the florist and progressive element. Regarding essays and discussions, there are so many questions that are all-important to the commercial florists of the year 1887 that he cannot afford to divide the time with the market gardener, the farmer and the fruit grower. When this horticultural society was organized, floriculture was but a babe in this country. There was nothing to be made from it pecuniarily. They had but little in the way of precedent or example to encourage them, and it matters not whether they were carpenters, shoemakers or dry-goods dealers, they were welcome so long as they thought enough of horticulture to use their money and their efforts for the good cause. All honor to them. They banded better than they knew, and what more can be wished for the new organizations than that at the close of an equal period of time they can point to a record of usefulness equal to that which is the pride of the Mass. Hort. society, and that not been for this and kindred societies, commercial floriculture would not have been what it is to-day; but as the child, when grown to robust stature, leaves his father's home and strikes out to make his mark in the world, as the vigorous offshoot from the potted plant, finding its quarters cramped, must be taken away and put in a place where its ambitious vigor can find room to work, so the commercial florists, as they feel their strength and as they begin to know their needs, strike out for themselves so that they may devote all their time and their best energies to those questions which most concern their own welfare.



SKETCHES AT THE DIXEY BANQUET.

The florists are now taking a lesson in self reliance and independence, not as individuals, but as a body. There is plenty of work for them that has not yet been touched. The influence which can be exerted by such a union of interests, and the pressure which can be brought to bear, wherever and whenever it is necessary, was shown last winter in congress, when an oppressive bill to double the postage on seeds was withdrawn, chiefly through the efforts of the Society of American Florists. The disgraceful practice of sending out goods under false names, which has flourished in so many quarters, must be attacked with vigor and pushed relentlessly until this stigma is removed from the reputation of American dealers, and the traveling impostors that have been going over the country unmolested for years with their gaudy pictures of impossible flowers, the like of which never grew, will soon find the place too hot for them. The florists are at last beginning to think and to act for themselves, and substantial benefits cannot fail to follow for them and for the public. It has been a long struggle for them; hard work all day and often all night, without a holiday and scarcely a Sabbath that they can call their own, this has always been and of necessity always must be their lot. These men who have reversed the seasons and have turned dreary winter into a long summer day, whose vocation is to make the home brighter, to add to the beauty and joy of the bridal festival, to cheer up the sick room and to lessen the loneliness and desolation of the funeral, have sprung from a very humble beginning. What they now have has been well earned, and the business of which they are to-day proud has come not by chance or good fortune but is the result of application, perseverance and patient toil.

CALADIUMS.—The foliage of the fancyleaved varieties of caladiums can be used with remarkably fine effect in arranging choice decorations; a few leaves and some tall spikes of flowers placed loosely in a vase are very attractive. F.

IVY LEAVES.—These are now taking a prominent part in floral work of various kinds, and are destined to take a still more prominent place in the future. It would not be space lost to bed a quantity of plants in a convenient spot where they could cover a wall in the greenhouse. The leaves will bring good money later. G.

Floral Decorations at the Dixey Banquet.

The floral decorations at the banquet given to Henry E. Dixey, the comedian, at the Hotel Richelieu, Chicago, the evening of March 21, were quite elaborate. The florist, Mr. M. E. Gallagher, was given a *carte blanche* order, and under the direction of Mr. Wm. Hanft, his chief designer, the banquet hall assumed a very rich appearance. The most striking floral pieces were four floral pyramids, each twelve feet in height, one standing in each corner of the room. These were four feet square at the base, tapering almost to a point at the top and were made of mixed flowers, principally roses and calla lilies. The banquet was given to celebrate the 1,000th performance of "Adonis," and on the bases of the pyramids was lettered, respectively, "Rice," "Dixey," "Adonis," and "1,000th."

A large amount of smilax festooning was used; that carried from one chandelier to another, completely around the hall, had long-stemmed tulips and daffodils suspended from it at a distance of six or eight inches apart, making a brilliant floral fringe which produced a very graceful and pleasing effect. From each point of the large silk canopy in the center of the ceiling hung long strings of smilax, each holding suspended a bunch of tulips, while all the chandeliers and mirrors were heavily draped in the usual way. In each of the ten window seats were large panels of ivy leaves whose polished surface bore in bas relief designs of various kinds; a butterfly of red and white carnations, the wings tinted with daffodils; three bells of white, golden and red immortelles; a large basket filled one side with Perles and the other with Mermets; a lyre of red and white carnations and roses; "Adonis" in red carnations with a knot of Mermets tied on one corner of the panel and Perles on the other; "Dixey" in red carnations with "1887" in upper corner and "1887" in the lower one, both of abyssum; harp of carnations and roses. In front of two mirrors were large floral pieces representing the pump and milk can used by Mr. Dixey in the second act of Adonis.

The tables were arranged in the shape of a Maltese cross and in the center of each was a mirror edged with smilax on which stood a square basket of long-stemmed roses, each basket holding a different variety, principally hybrids. On the piano a statuette supported a mag-

nificent basket of long-stemmed La France roses. Standing on a pedestal in the exact center of the room was a large floral urn which was an elegant piece of work. The body of the urn was of white carnations, the base of Bon Silene roses; across its face was traced on one side a band of roses—Perles bordered by Bon Silenes—while on the other was a band of shaded tulips. It was loosely filled with a large quantity of selected roses of mixed varieties. A balcony in one corner was filled with tropical plants, and it was from this balcony that the central sketch in accompanying illustration was made. The tables were set with the "Richelieu's" best china, glass and silver, and the apartment was most richly furnished, which, with the lavish display of flowers, made a most charming scene.

New York and Vicinity.

NOTES AND COMMENTS.

Although chrysanthemums are largely grown and much appreciated, any mention of the late show of the New York Horticultural society seems to produce an arctic fall in the temperature, especially among those members who promised varying amounts to the guarantee fund. In March they were curtly requested to "ante up and look pleasant," as they say in the vernacular, and this without any explanation or statement of finances. Surely four months must give time enough to prepare an itemized account of expenditure. And though the irrefragable standing of all concerned prevents any thought of suspicion, the providers of that fund feel that they have a right to know how their money was being spent. In the meantime, that unfortunate show is shrouded in a superior quality of gloom.

The itinerant vendors up on 14th street and 6th avenue have been reviving an old game of late. They are selling for five cents a packet "genuine attar of rose seeds; buy it and grow for yourself; the only lasting perfume." I bought some of it the other day to diagnose it; it is an inferior quality of parsnip seed, flavored with cheap perfume. The men appear to do a thriving business at five cents a packet.

Hinsdale really seems one of the best carnations now grown; it is very productive and extremely pretty, though of course if poorly grown it is a little bit washy in color. Growers here seem to be going in for a variety of carnations for the cut-flower trade, instead of confining themselves to simple red and white. Buttercup is really one of the best yellows, but Duke of Orange is certainly a fine thing; it is a bright orange in color, marked with deep crimson. But a very fine seedling carnation of Hallock & Thorpe's—not yet out, I believe—is E. G. Hill. It is a superb scarlet, sharply and vigorous, with curled foliage and fine habit. Another very good, bright rose-pink, is May Queen. There are plenty of good carnations, but of course they are not all suitable for the cut-flower trade.

Papa Gontier seems to take hold well. Of course comparatively few flowers have been in the market this winter, but they have met with a good reception. The foliage always has such a clean look, and the color seems to stand excellently.

Everyone now wants to know how that new yellow rose, Comtesse de Frignense, is going to behave. Perles have acted disgracefully this winter; in many places they emphatically declined to do any re-

spectable amount of flowering, and they have come bull-headed or malformed with exasperating frequency. Of course this season has been unusually trying to florists. Damp, dark weather has ruined a good many flowers, and this seems to trouble Perles very much. Some of our authorities say this and other roses are often injured by over-feeding. They are given top-dressing and liquid manure, and assorted stimulants until, I suppose, they become bilious or afflicted with botanical delirium tremens. Then they naturally will not flower properly. A little hose seems a judicious mixture with the soil.

Comtesse de Frignense seems to promise well; color and shape is certainly good. I fear though that the stem is not very strong. The plants I have seen appeared to have much the same habit as Nicotetos or Capucine.

It was asserted by some growers that Heinrich Schultheis was almost, if not quite, identical with American Beauty, but comparison soon proved the fallacy of that idea. I saw some good blooms of Schultheis the other day, and a lovely rose it is, but not to be compared for a moment to the Beauty.

By the way, there is a second "Bride" on the market, but I fail to see how there can be any difference between Mr. May's variety and this second candidate for public favor, if they both claim the Mermet as their parent.

I should not be surprised if single roses attain a good deal of favor one of these days; I mean in the cut flower trade. I saw Paul's red single rose at Mr. John Henderson's, the color is more gorgeous and velvety than the second Mermet, the petals are large and well set, and it is a most beautiful flower. This is a single hybrid remount, hardy, of course, and it does not seem to have the slightest tendency to turn double. It forces well, and the flowers seem lasting. There is a white variety too, but I have not seen this in flower. Mr. Anderson tells me that Klunder made a novel bridal wreath from these white single roses; it was charming and much admired. There is a truly rural flavor about a single rose that compeals it to many.

If Her Majesty is not a success this year it never will be. A good many growers are piling up efforts on this rose, for last year Her Majesty acted in rather a coquettish manner. Mr. May is pinning his faith on plants with wood like the leaf-stalks of the Victoria Regia for size and thorns. Of course the fact that it does well in England does not prove that it will be a success here. It is certainly a superb specimen—for those whose highest ideal is a peony.

Mr. Conley, of Lexington, Mass., who originated the new rose displayed at the orchid show, intends to astonish the natives at the New York Horticultural society show in April. He has two other new seedling roses, of which he has great hopes. He has been exhibiting flowers of white Baroness at Boston that caused much interest. We have several flower shows in prospect now, and it will be a very poor and backward spring if we do not have two or three new roses at every show.

EMILY LOUISE TAYLOR.

VIOLETS.—Plants of these should be well covered with buds when placed in the frame or house in the fall, or you can expect but few blooms from them. Your principal winter crop must come from the development of the buds formed before the plants are placed in their winter quarters. B.



Stocks for Grafting.

BY E. G. HILL.

Manetti as a stock for grafting purposes is esteemed by many, despised by others, and used under protest by not a few. In England it has been used extensively for working the hybrid and moss classes upon, but a perusal of the English horticultural journals of late shows that even for hybrid perpetual roses it is considered a temporary makeshift, and all authorities advise planting below the point of union that the graft may become self-rooted. Other and good authorities condemn it in unmeasured terms as destructive to the varieties worked upon it, and as tending to shorten the lives of roses thus propagated. That the H. P.'s, and in fact most classes of roses, do well on it for a time cannot be gainsaid, but it is quite evident that the gain is only temporary and of short duration. The finest blocks of roses I ever beheld were worked on this stock, but it was in their first year of growth that they thus presented themselves in such fine array. I do not question but that many varieties of hybrid roses worked on this stock do well even for a term of years, but not so with tea roses; they rarely thrive the second year after being thus joined, and from experience I am convinced that the Manetti, as a stock for tea roses, is anything but desirable.

Mr. Henry Bennett, of Shepperton, England, in correspondence some years since, states "It is unwise to graft tea roses on the Manetti, for they invariably prove short lived." On this point most foreign cultivators agree, and it is very seldom we receive tea varieties worked on the Manetti from over the water. Last year in the rush to work on a large stock of Comtesse de Frignense the Manetti was employed as a stock, and for the first few months they grew amazingly and were apparently thrifty and vigorous, but as the autumn approached they showed evident signs of wanting to rest; these symptoms were well defined, showing a check in the flow of sap, ripening of the lower leaves, which commenced to shed, and stoppage of growth; not so with those on their own roots, and similarly situated; they grew on and showed a willingness to produce flowers and growth quite different from the grafted plants. The same disposition was manifest in the progeny propagated from the grafted and own-root plants, those on the Manetti ripening their wood and leaves as the days began to shorten.

This question is of considerable importance, taken in its bearing upon roses for winter bloom, and we should be careful of our footing before stepping out too far on the Manetti as a stock for our forcing varieties. We have in one house a dozen varieties of teas worked on Manetti, but they showed the same inclination to rest as in the case of Comtesse de Frignense, and I might add they are only now pushing anything like vigorous growth. Foreign growers use the Brier almost exclusively for working tea roses upon, and it behaves quite nicely; in fact the slender growing teas, such as

Souy, Therese Level, and Primrose Dame, do admirably upon it. Tea roses on the Filigante or Brier act well when forced for winter bloom, but it is at least probable that we may find a better stock in some one of the rampant growing, branching tea varieties, such as Mad. Camille, Louis Richard or Laurette—varieties that produce quantities of feeding roses—thus supplying those of less robust habit with nutriment and strength for the winter work, if a stock to graft on is really needed.

Some one has observed that the Brier does not keep pace with even the less robust growing varieties of teas; on this point I cannot speak, except to say that Mar. Niel outgrows the Brier when worked upon it. I have heard G. L. de Dijon and the Noisettes recommended, but think the disposition of the running roses so unlike the dwarf, short-growthed teas, that they might not prove a pleasant union. American Beauty seems to thrive on Manetti, but it grows equally as well if not better on its own roots.

Like everything we do in this country we do with our might, and we are all likely to be affected with the craze for worked roses, but before venturing too far let us study the question in its different phases. Bennett does well grafted, but all the grafted Bennetts I know of, that have been forced, have been joined to the Brier. Mr. R. Craig stated to the writer, only a few months ago, that he thought it advisable and best to work Bennett on some good stock; but a view of Bennett, on its own roots at Belmont, shows a growth of three to five feet in a single season from plants set out of 3-inch pots. Could grafted plants do better than that? The success attending grafted roses in many places lies not so much in the fact that they are grafted as that they have never been pinched and starved to death (some call it resting) in small pots. If we were to propagate our roses from out-door grown wood, put in as hard wood-cuttings in winter, I doubt if we would be troubled with consumption, black spot, lack of vitality and other diseases—but this is a digression. The Manetti was under discussion; now let us hear from others on this theme, for it is of interest.

Richmond, Ind., March 20.

American Beauty Rose.

Your correspondent, A. W. M., has not said one word too much in favor of this rose, and when he spoke of a somewhat heavier soil for it, he struck the key note, for after two years' trial of this beautiful rose I am convinced that success greatly depends on this point in its culture; if in conjunction with proper soil the plants are tied down early in the fall there will be very much less complaint of its failing to produce fine flowers in abundance. I have one house here so treated, and up to date it has paid me much better than any other variety I have grown this season, and I feel sure if treated that way it will give very general satisfaction.

Many growers are afraid to touch it because they have seen or heard of someone's plants not producing enough buds. To all doubters my advice is to get good healthy plants, grow them fairly cool, treat them reasonable, and they will greatly change their opinion of this variety by this time next year.

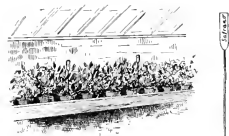
Summit, N. J.

JOHN N. MAY.

EXPRESS RATES.—Mr. E. G. Hill's article on this subject is timely, and I think the matter should certainly have the attention of the proper committee of the national society. H. CHAPPEL.

Labeling.

Now that the man who sends out plants untrue to name is liable to be caught up and published as a fraud, is it not in order to pay sharp attention to correct labeling in order that we may not be convicted of swindling through carelessness? There can be but little discrimination between the man who deliberately mislabels plants and he who does the same through carelessness or lack of competent employees. The reputation of any establishment which does a catalogue trade rests largely upon the accuracy of its system of labeling, and too much care cannot be bestowed upon it. It seems as though it should be a waste of words to emphasize this fact, but the writer has



LABELING.

seen so many places where this is done in such a haphazard manner, and relegated so often to the poorest of cheap (?) labor, that it seems well worthy of attention.

In some places the greatest of care is observed in labeling the plants when placed in the houses, but are picked out and carried to the order house by any thick-skulled laborer at hand, and thus all the care previously bestowed is at once lost and trouble begins.

Where a short label is used on plants which have attained some size it is very liable to be overlooked. To provide against this and that a label may be found readily, Messrs. Miller & Hunt, of Chicago, have adopted the practice of tacking the label to a cane stake, as shown in illustration, so that it will stand well above the foliage and be readily seen. As the size of establishments and the quantities of plants produced are continually growing, the demand for a simpler and safer system of labeling is becoming imperative. There is a chance here for an inventive, practical mind to do the trade a valuable service. In the absence of a better method, elevating the label where it may be plainly seen is certainly a great advantage. G.

Smilax.

The cultivation of smilax is exceedingly simple. It is not always seen in equally good condition, owing to causes which can easily be controlled.

The fact that it is not grown in England in the manner and quality that it is in this country has always been an enigma to me. In Cannell's catalogue of 1880 (not having seen one lately, I cannot say whether there has been any change in it), this description of smilax could be read: "Myrsiphyllum Asparagoides, a suitable plant for hanging-baskets." Our English brethren, though ahead in many respects, can certainly learn something this side of the water—one of these things being how to grow smilax.

The seed should be sown rather early in the year; the month of March will do very well. When the seedlings have grown an inch or two they can be potted

into 2½-inch pots. Place them upon any bench where they will receive a moderate amount of sunlight and a medium temperature; and, if attention is paid to watering, they will grow rapidly, soon being ready for a shift into 3-inch pots. In these they may stay until the time for planting them out in a well-prepared bed. This may be done in June or July. The bed may be made upon the ground; or a raised bench may be used, if preferred. The latter is not advised, for much more water is necessary to keep the soil in proper condition. The depth of the bed need not be more than twelve inches. Good loam, with a little manure for compost, will be found suitable. The plants may be placed about six inches apart in the rows and twelve inches between the rows. Stout wire should then be stretched from one side of the bed to the other, alongside of each row. The same number of wires, fastened by any device which will answer to the rafters, should also be arranged about six or seven feet above the plants, according to the height of the roof of the house. Green twine can then be tied from the lower wire to the upper, in position for each plant to cling to. As the plants grow, syringe frequently and keep the bed well watered.

During the hot days of summer some shading will be needed, but let it not be too heavy, for, in that case, thrips will surely be abundant. The smilax will be fit for cutting by October; and this first crop should be disposed of, if possible, before November is past. By so doing, two and perhaps three more crops may be had before the ensuing summer. Many cast out their smilax roots after Christmas, that room may be made for other things. This, in my judgment, is a mistake, for every year witnesses a scarcity of smilax in the spring, and the prices then realized are often double those obtained in the previous autumn. Smilax needs plenty of sun and water through the winter; the temperature by day should be from 65° to 75°, and at night should not be lower than 55°. Some consider it advisable to re-plant every year, but if the old benches are kept well mulched, it will produce good crops for two or three successive years.

A. E. W.

Iron Bench Support.

A bench put together in such a way that it can be readily taken down, changed or replaced possesses advantages easily recognized by any florist, and Mr. R. J. Donovan, of Havelock, Chicago, has benches of that character. The illustration shows a center bench as seen in his houses. The 4 x 4 posts which support the roof do the same for the benches and are provided with an iron casting—as shown in sketch—which holds the cross pieces of the bench. The 6-inch board at the edge is placed inside of the posts which hold it in position. The iron supports are attached to the posts by heavy screws; outside of these no nails, spikes or screws are used in the bench. There is no patent on this device and the castings can be cheaply made by any foundry after a pattern is once provided.

IN REPAIRING greenhouse benches, etc., don't forget that lime is an excellent preservative of wood. Seasoned lumber soaked in a solution of lime will outlast many times that which has not been so treated. A board soaked in lime water until entirely saturated, will when dry be almost as indestructible as stone, and will also be quite fire proof. G.

Plant Notes.

SUMMER PROPAGATION.—I wish to enquire through your columns the best and most successful method of propagating roses during the summer. H.

AMPELOPIS VEITCHII.—The buds of this are usually red, and the wood is slender as compared with *A. quinifolia*. M. F. S. should be able to see by dissecting the buds whether they are three or five foliate. C.

GERANIUMS.—In repotting these use a little coarse bone in the bottom of the new pot. As the plants grow vigorously, pinch out the leader, and stop any other shoot which is getting ahead of its fellows. To get the plant in the best selling condition take off the first trusses that show; more and better ones will follow. G.

FREESIAS.—It is said that freesia cannot be flowered from seed in one season. I have done it two successive seasons, planting the seed the last of March and cutting the flowers during the holidays. I sowed the seed, not very thickly, in flats, kept the plants growing during the summer and put them in the warmest part of the house when cold weather came. The blooms were quite as good as those from bulbs. L. W.

CARNATIONS.—In answer to E., March 15 No.: In several instances in which I have had dark carnations, both at the warm and cool end of a fire-heated house, I have noticed that those at the warm end did the best. This result is, perhaps due as much to extra ventilation as to extra heat. In fact whenever I have increased the heat and ventilation at the



same time I have noticed a marked improvement in the quality of the flowers. This is true of light as well as of dark varieties. L. W.

PLANTS FOR ROOM DECORATION.—The sudden change from a greenhouse to a hall or drawing-room of course tells sadly on most plants, and many are of little value after a few such trips in inclement weather. In selecting plants for this purpose do not take those which are growing strongly, but rather those which have thoroughly ripened the foliage. The house in which you keep your plants for decorations should be rather drier than those for growing stock, then the great change is not so severely felt. F.

MIGNONETTE.—Have any readers of the FLORIST tried forcing the new spiral white mignonette? I have grown it for the past two winters and have found it very good when planted in the border

SPRINGFIELD, OHIO.

☞ Cut-Flower Trade.

Easter Floral Styles.

BY OUR NEW YORK CORRESPONDENT.

Fale tinted flowers are giving way to those of a more brilliant hue in first-class arrangements, and for use during Easter-tide the snowy crop of blossoms will not predominate. Strong colors are so demanded in upholstery, stained glass, and other embellishments, that flowers follow on in the same style, and at present, gorgeous tints are the vogue. The splendid variety of hybrid roses, the rhododendrons, azaleas, cinerarias, and the rich golden blossoms of acacia and genista, are in season to satisfy the caprice for high colors.

The request for foliage variety does not wane, but rather increases. The show of greenery at Easter will be greater than ever seen before in the metropolis. Our florists are drawing on the South to swell the lists for their use in altar adornments, not only in palmettos and Georgia pines, but in swamp growth and vines. The plans projected for displaying the possibilities in foliage effects both in spacious saloons or in home apartments, are remarkably elegant. Walls will be covered with fountain-like sprays of vines, without any particular regularity; but in these luxuriant jets, many different shades and sorts of foliage will appear, from the tough ivy to tender asparagus; from the trailing myrtle to the fanciful lygodium. As a rule, these wall-sprays are held with a cluster of flowers, but of only one kind, never a mixture. A bunch of cypripediums, longiflorum lilies, amaryllis, or daffodils.

Room decorations done with red shades of blossoms are extremely handsome and fashionable. Between the pictures, panels of chlorozema were placed. In the corner of the drawing room a tall pyramid frame was placed, and a mossing made of the gorgeous rhododendrons Prince Camille de Rohan, and Dr. Moore azaleas. Vases of Paul Neron roses stood at each side the fire-place, and the mantle-piece and base of pier glass were banked with crimson tulips. Between the rooms was a tulip curtain, which, by the way, is now a very stylish and elegant floral drapery. The curtain is made of smilax strings, in which are tied very small Duc Von Thol tulips, so that it is a tapestry of red satin. Usually a ball of tulips is suspended in the center and the curtains are held back with immense clusters of large red tulips.

The floral garniture on bridal gowns is very elaborate. Not one, but several kinds of blossoms are used and a profusion of light foliage. A white satin gown trimmed last week was a model of elegance. Three garlands ran diagonally from the left side over the skirt. These garlands were composed of: Bride roses, Narcissus pecticus, Roman hyacinths and Asparagus plumosa; they were edged each side with Duchess lace to match the veil. The corsage was low and was trimmed around neck and sleeves with the same garlands. A coronet of roses and narcissus was worn with the veil. The hand bouquet was composed of Bride roses. The gown garniture done with orchids is unique. Sprays are placed in an irregular manner over the skirt and corsage. The effect is charming. The orchid wedding bouquet is made solely of *Cyclopogon cristata* and *Farleyensis* ferns. The most popular bunch for a bride, when orchids are not selected, is made of Bride roses with lily of the valley sprays festooning and falling over the flowers like a thick fringe. Klunder makes up bridal bouquets, of either

orchids or orange blossoms where his own taste prevails. Bridesmaids are carrying pink roses and lilies of the valley, the latter placed in a side cluster in the bunch, altogether, La France or selected *Mernets*, and not larger roses, are chosen.

Corsage bouquets are occupying considerable attention, and the fashions in these are decided. For calling in a carriage, teas and receptions, a small cluster of orchids completes the costume; one cattleya, a few lilies, and adiantums or asparagus is the combination. The full dress evening corsage bunch is a spray of orchids placed across the left breast. For the opera three Baroness or Marquis de Castellaine roses are worn. For luncheon, tulips, hyacinths, daffodils or pond lilies, are worn very low at the waist with long stems left to fall on the skirt. Only a few water lilies are to be had, and these are immediately appropriated. For mourning, the purple Roman hyacinth is most stylish. It is sometimes mixed with Neapolitan violets, but more often worn in a small, inconspicuous cluster.

Dinner center pieces are higher than they were, the flowers and foliage being raised somewhat like a bowl. A diamond-shaped center rises to a certain convexity, which is much more effective than when the piece is flat. A great show of foliage is made in the points of the diamond but toward the middle only ferns and asparagus are put in to combine with the roses. From one to two dozen hybrid roses are used. The daintiest rice straw baskets with handles made up with a pretty collection of greens to bed over; a single rose is inserted and its long stem twined around the handle of the basket and the flower left to adorn one side. A bow of very narrow ribbon the color of the rose assists in confining the stem to the handle.

Fans are more in request for German favors and souvenirs than other designs. One florist has one of white feathers which is very dressy; white satin ribbons are placed around it in a zig-zag fashion. Through this is tucked clusters of Roman hyacinths, and at the handle is a very large bunch of Neapolitan violets. This is called the "Spring flower fan." The triangle is another favorite German favor. It is made up with small blossoms—forget-me-nots, violets, daisies or mignonette.

Baskets all incline to a bowl shape, and even the high hampers, have the flowers tied in to give the prevailing convex effect. White lilacs and Jacqueminot roses are combined in these baskets, or they are filled with Jacqueminots and studded with dark roses (*Olibos* and the like) which are pushed out in relief to give the effect of a rosette. Bowl baskets of shaded red or yellow carnations are in style.

New York Retail Prices.

Baroness, Morrison and Marquis de Castellaine roses, \$1 to \$1.25; Magna Charta, 75c; American Beauty, 50 to 75c; Marechal Niel and Gloire de Paris, 50c; Jacqueminots, 25 to 40c; Cooks, 25c; selected Brides, 20 cents each; acacia, 75c to \$1 a spray; Niphotos and selected Perle roses, \$1.75 a dozen; daffodils, \$1.50; tulips, \$1 to \$1.20; mignonette, 50c to \$1.50; carnations, 50c to \$1.00; Dutch hyacinths, \$3; Roman hyacinths, \$1 a dozen; lilac, \$2 to \$2.50; a bunch of 1 to 5 panicles; lily of valley, \$1 a dozen; longiflorum lilies, 35c; callas, 20 to 25c each.

ROSE SHOWS.—No less than nineteen rose shows are already booked for 1887 to be held at various cities in England.

Trade Notes.

ST. PAUL.—Sadd Bros. lost their greenhouse by fire the morning of March 14.

WOOSTER, MASS.—The Horticultural society gave its first exhibition for the current year March 17. For plants premiums were awarded for best hyacinths, primula, cineraria, cyclamen and calla. Also for cut flowers and hand bouquet.

THOMASVILLE, GA.—The Fountain Floral Co. will close up and sell balance of plants on hand at auction, April 1; cause, lack of patronage. Weather has been disastrous to florists in the south. Out-of-door flowers are a month or more earlier than usual.

G. W. I.

WILMINGTON, DEL.—The managers of the Peninsular Horticultural society are about to petition the state legislature for an appropriation of \$1,000 to be used as prizes at the fruit and flower exhibition to be held in this city next month. Present indications point to a favorable consideration of the petition.

SAVANNAH, GA.—The Savannah Floral and Art association, since its exhibition in November, has been steadily increasing its membership, and a great deal of interest is being taken in it. Preparations are already being made for the coming spring exhibit, which will take place on April 19, 20 and 21.

PHILADELPHIA.—President Robert Craig was very pleasantly surprised by a number of his friends, including two from New York, March 18, who dropped in on him to celebrate his birthday. The surprise was complete, and his genial face was quite a study as it gradually dawned upon him what the unusual crowd of visitors meant. A very pleasant evening was passed, during which Mr. Kift sang his "Sash" song in his peculiarly attractive style. At supper, Mr. Craig, in rising to thank his friends, evidently still labored under the impression that his visitors had planned the affair, which created much amusement, from the fact that Mrs. Craig had made all the arrangements and had invited the New York guests a month previous. Among the guests was one of Philadelphia's lights—Mr. D. D. L. F., who helped very materially in entertaining the visitors, and kept the broadest kind of smiles floating all the evening. It was a very pleasant surprise, and every one present wished Mr. Craig many returns of his natal day.

BALTIMORE.—The first monthly show of the Horticultural society was an unexpected success. Everyone apparently thought everyone else was going to stay away, and brought all he could to save the reputation of the society, and the consequence was a bewildering maze of plants and flowers. Halliday took the lead in cut flowers, with a huge basket filled with *Harrisii* lilies on one side and violets and *Niel* buds on the other; it was supported by an ivy-covered stand and the whole effect was most artistic. Among the plants were a remarkably well-grown plant of *Strophomena Jamesoni* and some very fine hyacinths and cinerarias. Orchids were well represented by groups of finely-grown specimens from the Brackenridge's and the fine collection of T. Harrison Garrett, Esq. Among them were some very fine *phalenopsis* and *lycaestes*, notably P. Schilleriana and the rare *Lycaeste Skinnerii* aff. A call has been issued by the secretary for a meeting to consider the necessity of a florists' club in our city; should it come to anything you will hear from us.

MACK.

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Florist is for Florists, Seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.Advertisements for April 15th issue must
REACH US by noon, April 9. Address.**THE AMERICAN FLORIST CO., Chicago.**

IN THE REPORT of the late orchid
show at New York, the name of Mr.
David Allan, of Mt. Auburn, Mass., was
inadvertently left out of the list of those
exhibiting. We are informed by Mr.
Siebrecht that Mr. Allan exhibited some
very fine specimens of Dendrobium War-
dianum.

Catalogues Received.

Parker & Wood, Boston, Mass., seeds;
F. E. McAllister, New York, seeds; Jas.
M. Lamb, Fayetteville, N. C., plants; John
A. Bruce & Co., Hamilton, Ont., seeds;
E. L. Boice, Madalin, N. Y., nursery
stock; C. H. Murphy, Urbana, O., plants;
Joseph Harris Seed Co., Rochester, N. Y.,
seeds; S. C. Moon, Morrisville, Pa.,
nursery stock; J. E. Shepherd & Sons,
Lowell, Mass., plants; C. Hennecke &
Co., Milwaukee, wire work; A. M. & J. B.
Murdoch, Pittsburgh, Pa., plants and
seeds; F. R. Pierson, Tarrytown, N. Y.,
seeds and plants; West End Green
Houses, Mt. Pleasant, Ia., plants; L. D. C.
Hopkins, Cortland, N. Y., seeds and
plants; E. L. Koethen, plants; D. R.
Woods & Co., New Brighton, Pa., plants;
Chas. N. Woodruff, Macon, Ga., plants;
H. W. Williams & Sons, Batavia, Ill.,
plants; same, labels, mailing boxes, etc.;
Bristol Sisters, Topeka, Kan., plants; J.
Palmer Gordon, Ashland, Vt., plants; I.
N. Kramer & Son, Marion, Ia., plants;
F. W. Kelsey, New York, trees and
plants; Chas. F. Evans, Philadelphia,
new roses; E. Y. Teas, Dunrieth, Ind.,
trees and shrubs; Wm. C. Wilson, Astoria,
N. Y., plants; Chipman Bros., Sandwich,
Mass., pink pond lilies; J. Sieckman,
Kostritz, Thuringa, Germany, plants;
Hamlin Johnson & Co., Providence, R. I.,
seeds.

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Jonquils, Daffodils (Trumpet), Beicolor and Major
in mixture or assorted, Yellow Carolina Jasmine—
all at \$2.00 per 30, Expressage extra.**MRS. J. S. R. THOMSON,**

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Wholesale Market.**Cut Flowers.**

	BOSTON, March 24.
Roses, Teas.	3.00
" Perles, Niphetos.	1.00
" " Mermetts, Bonnetts.	10.00
" " Jacques.	1.00
Carnations.	1.00
Violets.	1.00
Lily valley, tulips.	1.00
Narcissus.	1.00
Smilax.	2.00
Adiantum.	2.00
Stocks.	2.00
Health.	3.00
Pansies.	1.00

	NEW YORK, March 21.
Roses, Bon Silene, Mad. Cypri.	2.00
" Perles, Niphetos, Souva.	1.00
" " Mermetts, Bonnetts.	10.00
" " Cooks, La France.	12.00
" " Bonnetts.	1.00
" The Bride.	12.00
" Am. Beauty.	20.00
" Jacques.	1.00
" Hybrid.	25.00
Carnations.	1.00
Smilax.	2.00
Lily valley, Roman.	2.00
Tulips.	1.00
Violets.	1.00
Lilac.	1.00

	CHICAGO, March 25.
Roses, Perles, Niphetos.	7.00
" " Mermetts.	10.00
" " La France.	10.00
" " Bonnetts.	8.00
" " Souva.	2.00
" " Bon Silene.	4.00
" " Jacques.	12.00
Carnations.	1.00
Violets.	1.00
Romance, narcissus, valley.	1.00
Calas.	1.00
Tulips.	1.00
Smilax.	2.00

	PHILADELPHIA, March 21.
Roses, Teas.	3.00
" " Niphetos.	1.00
" " Mermetts, Bonnetts.	10.00
" " Perles.	1.00
" " La France, Siels, Cooks.	10.00
Carnations.	1.00
Butch hyacinths.	1.00
Bouvardia.	1.00
" Lily valley.	1.00
Calas.	1.00
Smilax.	2.00

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Wholesale Cut FlowersRoses, Carnations, Tulips, Lily of the Valley, Jon-
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42 LA SALLE ST., CHICAGO.Only wholesale store in the U. S. open
day and night. Code, shipping instruc-
tions and all like particulars supplied on
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BLOOMSBURG, PA.

The Seed Trade.

A careful examination of the seed and plant catalogue crop for 1887 evolves the rumination that it will be a glad and joyful day when the average printer learns to place an electro right side up—when he shall have realized that the heavy shading of a cut is not to be on the upper side.

Here's reading for those windy catalogue writers—in England and far-away countries like that. A buyer writes to one of the quiet houses:

"I live near ———, and will buy seeds of you. I think I like your style better than ———, of ———, his things are too good."

The italics are ours, but the writer scores a point.

SUCCESS IN MARKET GARDENING AND VEGETABLE GROWERS' MANUAL. W. W. Rawson, Boston, Mass., is a neat volume of 208 pages treating the subject of market gardening in a practical manner.

GLASS.—Will some of your readers give their opinion as to the best size and thickness of glass for rose houses, or in fact any forcing house? R. E. S.

WHITE ANTS.—Will some florist who has had experience with these pests please enlighten the readers of the Florist by giving the best remedy for their extermination where once established—and also the best method to prevent them getting a foothold in new houses to be built? ANTI.

POINSETTIAS.—Will some of the readers of the FLORIST inform me whether the formation of young bracts on poinsettias which have been cut down, "rested," and then put on the benches is of frequent occurrence, and will it spoil the plants for next winter's crop? The new shoots are only about three to four inches long and each one terminates in an embryo bract.

Macon, Ga. CHAS. N. WOODRIFE.

DOUBLE GLAZING.—Anti is somewhat in error in regard to this. If I were living in a very cold climate, and wanted to grow such plants as orchids, and other tropical plants, I should not hesitate to use double glazing in green houses for that purpose, and, if properly done, I do not think dust and dirt would be liable to cause much trouble. Mr. John Borland, gardener to Col. Fairbank, St. Johnsbury, Vt., could give some useful information about this. If he will kindly do so, it would be of great service to many besides your enquiring correspondent. J. N. M.

PLANTS PLANTS

GERANIUMS, Mad. Sallered.

AGERATUMS, White Cup and Copes Gem.

DWARF ACRYANTHUS, Collish and Hovey.

ALTERNANTHERAS, Amer. Nana and Littlefolia Major.

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From 2½ in. pots.

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Samples, 1 of each 10 varieties, free by mail for \$1.00.

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"Please, I thank you for the splendid seeds received from your firm. It would be a rather lengthy list if I should name all, but I will say that among—first, and second premiums awarded me at our fair in Northern Indiana and Northern Michigan, 25 first premiums were for vegetables raised from your seeds. What firm can beat this?"

ALICE BEYER, Sec. Board Ind.

Seed of this quality I am now ready to sell to every one who will take a firm or plan a garden, sending them FREE my Vegetable and Flower Seed Catalogue for 1887. Old customers need not write for it. I catalogue this season the native wild seed.

JAS. J. R. GRIFFITH, Seed Grower, Marblehead, Mass.

BURPEE'S FARM ANNUAL FOR 1887

Will be sent FREE to all who write for it. It is a Handsome Book of 128 pages, with undecorated illustrations. First, and second premiums awarded me at our fair in Northern Indiana and Northern Michigan, 25 first premiums were for vegetables raised from your seeds. What firm can beat this?"

ALICE BEYER, Sec. Board Ind.

Seed of this quality I am now ready to sell to every one who will take a firm or plan a garden, sending them FREE my Vegetable and Flower Seed Catalogue for 1887. Old customers need not write for it. I catalogue this season the native wild seed.

JAS. J. R. GRIFFITH, Seed Grower, Marblehead, Mass.

BURPEE'S SEEDS

and Flower Plants, Thoroughbred Stock and Fancy Breeds. RARE NOVELTIES in Vegetables and Flowers. Send address on a postcard for the most complete catalogue published.

W. ATLEE BURPEE & CO., PHILADELPHIA, PA.

MARKET GARDENERS BUY NORTHERN GROWN SEEDS.

Get your seeds at the lowest of **Warranted Northern Seeds** before buying elsewhere.

Write for list, 10¢ per copy. **JOHN A. SALZER**, Seed Grower, La Crosse, Wis.

NORTHERN GROWN

Garden and Farm Seeds

Currie Bros' Horticultural Guide for 1887, now ready, will be sent free on application. It contains many Rare Novelties in Flower and Vegetable Seeds.

CURRIE BROS., Seedsmen and Florists,

MILWAUKEE, WIS.

ALBERT DICKINSON,

Dealer in Time, Clover, Flax, Hungarian, White, Red Top, Blue Grass, Lawn Grass, Orchard Grass, Bird Seeds, &c.

(U.S. 117 & 119 Kinross St.)

Warehouses: 104, 106, 108 & 110 Michigan St., CHICAGO, ILL.

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New York.

Mr. Henry Siebrecht has gone where the jasmine twineeth.
Orders for Easter hang fire. Every year the orders for holidays are delayed later and later.

So much bloom was cut for the late orchid show, that these blossoms are somewhat scarce.

The first of the spring plant auction sales opened March 15 with good attendance and brisk bidding.

Mr. Wm. C. Wilson has imported a choice lot of small evergreens, which he puts for house decoration.

Messrs. Beers and Hamilton will give a grand exhibition of Easter plants, when 10,000 specimens will be shown, continuing the first fortnight in April.

Alexander McConnell and Mr. Hall of S. J. Burnham & Co., are making a trip south, and have invested largely in palms and pines suitable for Easter decoration. Real ostrich eggs have been obtained by a leading florist who places them in an oval nest of violets which rests on a cushion of lily of the valley. Another charming Easter present.

The first orchid show has done much for this flower, of which the general public were comparatively ignorant. Already inquiries are being made for varieties that will grow in the window.

If a florist desires to know if or not he is popular among the craft let him give a show. Where there are profusers of exhibits and willing hands to assist in the labor a man knows how he is estimated.

English wall flowers are combined with daffodils in bronze and gilt hamper baskets which are bound with old gold and sage-colored satin ribbon, and fastened with a cluster of cones. These are fashionable for Easter gifts.

Weir, of Brooklyn, received the majority of orders for Mr. Beecher's funeral, and reaped a harvest. A noticeable sameness in the designs suggests that it is unwise to employ but one florist to arrange such a quantity of pieces.

There is a decided stir which, it is predicted, will boom night-blooming plants, both for conservatories and gardens. Both aquatic houses, and these for the flowers that open at night will be features of fine country seats the coming season.

Ten thousand dollars was realized from the first orchid show. This was shared between the Eden Musee management and Siebrecht & Wadley. The latter lost several fine plants from exposure to gas, among which was a magnificent specimen of *Caryota* trees.

The novelty of the spring exhibition of the New York Hort. society will be some of the bloom of new varieties of English roses imported in ice. The Princess Beatrice, the flame-colored tea rose, is to be among these. The \$150-cup prize of the coming exhibition of this society is on exhibition in Union square.

Dwarf Pearl, Double Italian

—AND—

Diamond Pearl Tuberoses.

We offer a first-class lot of the above sorts warranted true to name and first-class blooming bulbs at \$2.00 per 100, \$1.00 per 500 lots of 1000 and over \$10.00 per 1000. Second size bulbs (50 to 75 per cent well bloomed first year) prices \$1.00 per 100, 50-cents and smaller bulbs suitable for growing large bulbs for another season's sales of the following varieties: Dwarf Pearl, Double Italian, Diamond Pearl and Early Single orange flowered, all warranted true to name. Prices, best quality, 100-cents and smaller bulbs at etc. per 100, \$2.00 per 1000. Smaller size bulbs 25-cents per 100, \$2.50 per 1000. Special low prices on 25, 50 and 10000 lots, offering a rare chance to secure your bulbs at a nominal price. Also early single flowered variegated for 1000. Tuberoses, first class, at \$2.00 per 100, \$2.00 per 1000, 50-cents of same at \$2.00 per 1000. About 100000.

JOSEPH W. VESTAL,
Little Rock, Ark.

* * PELARGONIUMS * *

Per 100
30 named varieties, 2½-in. pots \$8.00
Geraniums, collection 100 varieties 1.00
Fuchsias, collection 20 varieties 2.50
Verbenas, collection 25 varieties 2.50
Roses, Perle, Nishetos, Mermets, Bon Sibere, etc 1.00

SEND FOR TRADE LIST.

HENRY C. HIGLEY.

Cedar Rapids, Iowa.

CARNATIONS CHEAP

Surprise and J. J. Harrison, from 2½-in. pots \$4, per 100. The same in Rooted Cuttings, \$2.50 per 100.
Hinz's White, Paris and 30 other sorts, 2½-inch pots, \$1 per 100. The same in rooted cuttings \$1.50 per 100, 512 per 1000 assorted. Advertis.
J. G. BIRROW, Fishkill, N.Y.

* PANSY —+— PANSY *

Fine Plants, \$1.50 per 100; \$10 per 1,000.

Either in separate colors or mixed. The seed is from the great Pansy Specialist, H. Wreide, Langenberg, Germany, and consists of 34 strains of colors.
JOHN C. FLEISCHER,
ST. PAUL, MINN.



PELARGONIUMS.

—O—

Dr. Masters, very fine, 3-in. \$20; 4-in. \$30; 5-in. \$40
Mable, best market
variety 24-in. \$8; 3-in. \$10; 4-in. \$12; 5-in. \$20
Not named, 24-in. \$6; 3-in. \$8; 4-in. \$10; 5-in. \$15

R. J. PURVIS,

Cook Co.

HAVELOCK, ILL.

WANTED

500 Rooted Cuttings

Lemon Verbenas,
AT ONCE.

Address, stating the price.

J. NEWMAN & SONS,

WINCHESTER, - - - MASS.

New Yellow Coleus, J. Goode.

READY FOR SHIPMENT APRIL 1.

This superb yellow coleus originated with that thorough and veteran plantsman, Mr. John Goode, of Hyde Park, Ill., who first sent out double sweet alyssum, Ralph and Fanny geraniums, and other plants of merit. The plant is really a yellow *Verschoellii* (though not a sport from that being a strong grower, with large, deeply toothed and crimped bright yellow foliage. We deem it superior to any yellow in existence, holding its color throughout the season, and standing the sun well.

PRICE

2½ inch Plants, 4 to 5 inches high, well rooted,
PER DOZ., \$3.00; 25 FOR \$5.00; 50
FOR \$10.00.

We control the entire stock, which is limited.

Mr. F. Kaust, chief gardener at the South Parks, Chicago, says: "It is the best variety I ever handled in my 13 years' experience in the South Park. I have discarded all other yellows in preference to it, and cannot say too much in its praise for garden decorations."

J. C. VAUGHAN,

42 La Salle St., CHICAGO.

SEGERS BROTHERS,

Growers of

HOLLAND BULBS

Such as

Hyacinths, Tulips, Crocuses, Narcissus, Liliums, Lily of the Valley, Anemones, Ranunculus, Spiraea, Etc., Etc.

References about quality etc., to several United States Florists and Seedsmen.

Send for Wholesale Catalogue.

LISSE, NEAR HAARLEM, HOLLAND.

WHOLESALE ONLY.

NO AGENTS.

CARNATIONS

ROOTED CUTTINGS

Of nearly all varieties can still be supplied. Parties wishing large lots of

SNOWDEN, CENTURY, ETC.,

would do well to write for special terms. Price Lists to all applicants.

THOS. F. SEAL,

UNIONVILLE, Chester Co., PA.

TREES
SHRUBS
ROSES

Offer for Spring planting the best hardy RHODODENDRONS, AZALEAS, JAPANESE WALES, and other choice ORNAMENTAL TREES, EVERGREENS, SHRUBS, ROSES, CHRYSANTHEMUMS and hardy Plants. Also FRUIT TREES and VINES. Best quality in quantity or specimens at lowest rates. Catalogues and estimates on application.

FRED. W. KELSEY, 208 Broadway, N. Y.

Trade Notes.

MILWAUKEE. Currie Bros. are building five new greenhouses to be used principally for the production of cut flowers.

NEW ORLEANS. The *Bayoune* of March 13 gives a portrait and sketch of the life of Dr. Asa Gray the celebrated botanist.

TOPEKA, KANS. Miss Emma Bristol has returned from a two months' trip to California. Bristol sisters had a bloom of American Beauty rose five inches in diameter, the finest in the west. K.

CLEVELAND. There were more bulbs forced here this season than ever before. Good flowers have, however, been in brisk demand. Five or six hyacinths of assorted colors in a 7-inch pot, the soil covered with lycopodium, have sold well. Robert Hughes says his lease does not expire till April, '88, and he will remain at his present location until that time. J. C. Gooding has resigned his position as manager of W. J. Gordon's rose houses; he will leave as soon as his successor is appointed; ill health the cause. Andrew Eadie has lately been on the sick list. Heart disease is the trouble. In response to a call, signed by seven florists, a meeting of the florists of the city was held March 14 for the purpose of organizing a florists' club. Mr. J. M. Gasser was elected chairman and Miss May Grant secretary pro tem. A committee was appointed to draft constitution and by-laws and report at next meeting. E. G. C.

CHICAGO.—Trade has been better than usual for Lent. The Forest Glen Floral Co. have removed a short distance north of their old location on Walash avenue. Chas. Reissig has a very large azalea plant covered with thousands of pink blossoms in his window which attracts considerable attention. He is now cutting some remarkably fine hybrids and displaying in his windows a few orchids and a large vase of *Acacia pubescens*. Jacques are in good supply and of fine color. Walter Kreithing and Hovey & Co. also have a fine display in their windows. M. F. Gallagher has his windows filled with designs for the Dixey banquet. At the last meeting of the Florist club eight new members were elected, which makes the membership a round 100. The club room is now very comfortably furnished and on its tables may be found all the leading horticultural papers and magazines, in addition to a large number of trade catalogues, both domestic and foreign, and reports of horticultural societies. The walls are adorned with pictures of plants and flowers; at one end being a photograph of the S. A. F. taken at Wootton, Philadelphia. The room is nicely carpeted, furnished with a large heater, and there is certainly not a pleasanter place in the city for the members to drop in and spend a pleasant hour. Chas. Reissig has already purchased a supply of orchid plants to grow for cut flowers. Geo. Wittbold is cutting some bloom, and two other florists are considering the advisability of devoting a house to these flowers.

WHITE

WATER LILY ROOTS

(*Nymphaea Odorata*.)

\$5.00 PER 100. THE TRADE SUPPLIED.

WM. F. HALSEY,

Water Mills, Long Island, N. Y.

YOUNG & ELLIOTT,

Seedsman and Horticultural Auctioneers,

54 & 56 DEY ST., NEW YORK.

SPECIAL NOTICE!

Our annual Spring sales of plants have commenced and will be held on Tuesdays and Fridays of each week until further notice.

Catalogues are issued three days previous to day of sale and will be regularly mailed to any one desiring them.

Customers who can not conveniently attend the sales may send orders to purchase, naming a limit beyond which they do not wish us to bid.

WM. ELLIOTT, AUCTIONEER.

WE SELL

*EVERYTHING *FOR *FLORISTS.*

Plants, Bulbs, Seeds and Requisites.

If you do not already receive our **Quarterly Wholesale Price List**, please send name and address and it will be regularly mailed.

PETER HENDERSON & CO.,
35 and 37 Cortlandt Street, - NEW YORK

Our New Alternanthera

Spectabilis Variegata Nana

Price 25c. each, \$2.00 per doz.)

is described in our Illustrated Catalogue for 1887. Send 3c. to pay postage.

JOHN R. & A. MURDOCH,
PITTSBURGH, PA.

Water Lilies.

CAPE COD PINK POND LILY,

AND ALL COLORS.

Red, Blue, Pink, White and Yellow.

BENJ. GREY, Malden, Mass.

THE—

Cape Cod Pink Pond Lily.

We call the attention of "The Trade," Wholesale and Retail, and all **GROWERS OF FLOWERS** to our specialty **Nymphaea Odorata Rosa**. For Price List, Plants and Cut Flowers, address the original cultivator.

CHIPMAN BROS.,
Sandwich, Mass.

Bouvardia Plants for Spring Setting

2000 DAVISONIA, White.

1,500 KERRANS, pink.

1,000 PRINCE ARDRELL, pink.

1,000 ALFRED KESNER, double white.

Strong, Healthy Plants, ready May 1st, at \$4 per 100.

SAMUEL NICHOLS,
Cohasset, Mass.

PANSIES

Extra choice strain, large flowering, transplanted, \$2.50 per 100, \$27.50 per 1,000.

GERANIUM M. of Snow. Stock plants bushy,

12-inch pots, \$5.00 per 100.

LYCHEVIA CALIFORNICA, First class,

\$5.00 per 100.

L. J. DENTON,

Plainfield, N. J.

NOTICE.

We have the largest stock south of Kentucky, and

PANSIES, GERANIUMS, COLEUS, HELIOTROPES, TUBEROSE BULBS;

in fact everything necessary for bedding purposes.

Send for our Price List.

M. TITTSCHLER & SONS,

Hydes Ferry Garden, NASHVILLE, TENN.

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American Florist Co's

NEW TRADE

DIRECTORY

IS NOW

READY

Secure a Copy at Once.

PRICE

ONE DOLLAR.

American Florist Co.

54 LA SALLE ST., CHICAGO.

ROSES

Grown from Blooming Wood and in full growth now.

BENNETTS AND BRIDES

3-inch Pots, \$5.00 per 100. 2 1/2-inch Pots, \$5.00 per 100.

Perles, Mermets, La France, Niphotos, M. Niels, Cooks,

3-inch Pots, \$5.00 per 100. 2 1/2-inch Pots, \$5.00 per 100.

SAFRANO, BON SILENES, SPRUNT, HERMOSA, PINK DAILY.

And 50 other good sorts. 2 1/2-inch Pots, \$5.00 per 100.

DAHLIAS

5,000 Field-Grown named sorts,

35 Kinds Undivided Roots, \$5.00 per 100.

3,000 Single Kinds, Large Roots, Unnamed, good colors, \$5.00 per 100.

Send for Wholesale Lists of Greenhouse Stock and Florist's Requisites

B. P. CRITCHELL & CO.,

197 W. 11th St., CINCINNATI, O.

Our New Carnations for 1887

Melle Carle, Boissy, Orient, Silver Lake, Florence, Chiton, Paxton, etc.
Are the finest in every respect ever introduced here, for market purposes.
Send for descriptive list to

DENYS ZIRNGIEBEL,Anna Webb plants by the 1,000. **NEEDHAM, MASS.****30,000 Rooted Carnation CUTTINGS.**

Duke of Orange, Peter Henderson, Snowdon, Lady Emma, Chester Prince, Brussels, Century, Green Wilder, Buttercup, and a number of other varieties from \$2.00 to \$4.00 per 100. Send for catalogue.

ISAAC LARKIN,

Toughkenation, Chester Co., Pa.

BOUVARDIA PRES. CLEVELAND.

Color, dazzling crimson scarlet, very large trusses and flowers; a free bloomer. No grower should be without it.

BOUVARDIA BOCKII.

A beautiful rose pink of a dwarf habit and very free bloomer. Plants ready April 15, at \$8.00 per 100.

The best GERANIUMS in the Boston market are **GEN. W. S. HANCOCK**, crimson scarlet double; **H. W. LONGFELLOW**, crimson scarlet single. The above are very fine bedders. Price, \$5.00 per 100. Also,

FOUR NEW GERANIUMS.

MRS. CLEVELAND, rose salmon.
BRILLIANT, a brilliant scarlet, very large trusses and flowers.

WM. A. BOCK, salmon, shaded yellow; the above three are single.

MARY E. BOCK, a very light pink, shading to white on the outer petals; double.

They are all very fine bedders; price \$1 for the set. The above have all received the first-class certificate of merit. Address,

WM. A. BOCK, North Cambridge, Mass.**CHARLES J. POWER,****FLORIST,****SOUTH FRAMINGHAM, MASS.**

Greenhouse, Bedding, and Miscellaneous Plants.
Flowers and Floral Decorations, for Parties, Weddings and Funerals, furnished and arranged to order.

THE ROSE APPLE

(Eugenia Jambos)

Will fruit under greenhouse culture, and in beauty of foliage is surpassed by but few tropical trees.
Price, to the trade only 30 cents each; \$4.00 per dozen. Strong plants from open ground.

REASONER BROS.,

Royal Palm Nurseries, Manatee, Fla.

JAMES HENDRICK,

FONT GROVE GREENHOUSES,
Shironghlands, Albany County, N. Y.
respectfully offers to the trade 2,000 of the newest and best variety of

TEA ROSES

in 2 and 4 in. pots, guaranteed from healthy stock and in prime condition, at prices as low as fair, square and considerate dealing warrants; 100.00 of fancy geraniums, carnations and other popular plants for florists' use at very reasonable rates. No charge for packing. A TRIAL SOLICITED. Societologies.

ROSE**PAPA GONTIER.**

Plants of this beautiful Rose can now be had from the undersigned at the following prices: In 2½-inch Pots, Per 100, \$25; Per 500, \$100; Per 1,000, \$180.

CASH WITH ORDER FROM UNKNOWN CORRESPONDENTS.**JOHN HENDERSON,**

MENTION THE AM. FLORIST.

FLUSHING, N. Y.**My**

WHOLESALE AND DESCRIPTIVE
for 1887, of Bedding Plants, Roses, Palms, Orchids,
etc., mailed to all applicants. Large stock of the

Catalogues

following on hand at cheap rates: *Ampelopsis Veitchii*, various sizes *Tou*, and *Hybrid Roses*, all the leading sorts, named *Chrysanthemums*, *Dracaa Indivisa*, various sizes, *Echeverias*, *Small Ferns*, *Geraniums*, double and single, best named sorts, *Arca Lutescens*, in 2½, 4, 5, and 6-inch pots, *Latania Borbonica*, *Scaforthia Elegans*, *Orodoxa Regia*, *Corypha Australis*. Other Palms, such as *Cocos Weddelliana*, *Chamereopsis Exceba*, *Phoenix Reclinata*, *Phoenix Rupicola*, *Phoenix Tennis*, *Kentias* of sorts. *Glazinea Insignis*, fancy named *Clematis*, and other vines, etc. Prices given on application.

WM. C. WILSON, FLORIST,

Steinway's, Astoria' L. I.

The undersigned begs leave to inform his patrons and the public in general, that orders for his new roses, *The Puritan*, *Mrs. John Laing* and *Meteor*, have come in so rapidly that he is forced to announce that his *order book is closed* for the present. When he feels warranted in accepting further orders, he will make known the fact through these columns or by circular.

Yours truly,

CHAS. F. EVANS.

Some Corrections.

In regard to your biographical sketch of Mr. Louis Menand in last issue, I am authorized by that gentleman to state that a few corrections should be made. Mr. M. landed in America in 1837, hence he was a few days older than 30 years. The Peristeria clata mentioned had but two spikes, with only sixty flowers on both spikes, not on each one. We must correct such errors of statement if we do not wish to spread scepticism, which is already so prevalent with the horticultural community. The Cymbidium Lowianum owned by Mr. A. A. Smith, of Troy, has sixteen spikes, bearing altogether not much less than 300 flowers; in this your correspondent was a little below the mark. Mr. M. not only thinks but is convinced that the phrase, "thorough knowledge of Greek and Latin," was a *lapsus calami* for superficial knowledge. He also states that he may be a type of "something of some sort," but *not* the type of the best gardeners of days gone by; to this qualification he strongly objects.

A LOVER OF FLOWERS
AND ALSO OF TRUTH.

MILWAUKEE.—Archie Middlemas has completed a new house 116 feet long for pot plants.

SPECIAL TO THE TRADE

1898-1899
Alma Sisler, Hudson, Ophelia, Gerard Deshaes, Marie Van Houtte, Mad. Bravy, Com. De La Barth, Mad. Jos. Schwartz, Mad. Lambert, Mme. Annette Saint, Coq. de Blancher, Adams, Duchess of Edinburgh, Niphetos, \$1.00 per 100; \$3.00 per 1000; Cath. Monet, \$3.00 per 100. Most of these roses are in 3-inch pots. CARNATIONS, De Graw, King of Crimson, Garfield, \$3.00 per 100; \$2.50 per 1000. COLEUS, Contatura, Gymnocarpis, Swanley white Violets, Heliotropes, Chetana and Mad. Bonny; Geraniums, unnamed \$2.00 per 100. Snailx in any quantity \$1.50 per 100, \$12.00 per 1000. Samples by mail for 5 cents.

GEO. THOMPSON & SONS,
Wholesale Florists,
361 W. Jefferson St., Louisville, Ky.

CARNATION CUTTINGS.

Rooted cuttings of Grace Wither, Chester Pride, Century, Seawan, Edwardsii, Peter Henderson, Snowdon, Lady Emma, Philadelphia, and Scarlet Gem.

Price, \$2.00 per 100. \$15.00 per 1,000.

Send for price list of potted plants, ready March 1. A new work on "Carnation Culture," by L. L. Lamborn, will be sent free on all orders of \$20.00 and upward from this list, or on receipt of price, \$1.50, will be sent postage prepaid to any address.

W. M. SWAYNE,

CARNATION GROWER.

P. O. Box 295. KENNETT SQUARE, PA.

CARNATIONS

Huze's White and Red, Peter Henderson, Snowdon, Sea Foam, Portia, De Graw, Scarlet Gem, Garfield, Crimson Velvet, Lady Emma, Century, Philadelphia; 2 and 2½-inch pots, \$3.00 per 100. Verbenas, fine plants, \$2.50 per 100. Snailx, good plants, \$2.50 per 100.

HARRIS JAYNES,

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CONTRACTS made to furnish Violets for press, statim quantity wanted. Also Colons "Firebrand."

JOHN CURWEN, Jr.

Villa Nova, P. O., Delaware Co., Pa.

Carnation Plants,

Edwardsii, Snowdon, Portia, Firebrand, Philadelphia Red, Scarlet Gem, Chester Trade and many other choice varieties.

Write for prices and descriptions.

W. R. SHELMIKE,

AVONDALE, CHESTER CO., PA.

Andalusia.

Strong, well-rooted plants of the beautiful lemon-yellow, deeply fringed Carnation.

ANTALUSIA.

\$1.00 per Dozen, \$5.00 per 100.

SUNRISE, SCARLET GEM AND MRS. CARNEGIE, \$3.00 per 100.

Orders accompanied by cash promptly attended to.

H. E. CHITTY, FLORIST, PATERSON, N. J.

Mention American Florist.

NEW CARNATIONS,
PANSIES, ASTERS,

of extra quality for Florists, are our Specialties Send for descriptive price list to

DENYS ZIRNIGEBEL,

NEEDHAM, MASS.

ROOTED CARNATION CUTTINGS

For Sale.

STRONG, HEALTHY STOCK.

PRES. DE GRAW AND LA PURITE

Pres. de Graw, the best long stem white carnation now grown. \$1.25 per 100, \$10.00 per 1,000.

C. B. HUMPHREY,

Waterville, Oneida Co., N. Y.

SELECT PLANTS.

German, double and single, 100 varieties, \$8.40
Roses, Hybrids, strong, 7½-inch, 3.00
Roses, double, 4.00
Roses, Bennett's, The Bride, Am. Beauty, 15.00
Carnations, King & White, best white, 4.00
Carnations, colored varieties, 4.00
Asparagus tenuissimus, 2½-in., 3.00
Transplanted Pansies, Andrie, \$1.00 per 100, \$7.00 per 1000. Send for Wholesale Price List; just out.

A. GIDDINGS, DANVILLE, ILL.

CARNATIONS

Having an overstock of Edwardsii I will sell fine plants from boxes at \$1.25 per 100; \$10.00 per 1,000.

VERDENAS

Will have ready by the 5th, a fine lot of rooted cuttings of scarlets shades, mixed and pink & shades mixed at 7½ cts. per 100; 80.00 per 1,000.

COLEUS

15 good bushers, mixed, at 50 cts. per 100; \$5.00 per 1,000, all healthy and well rooted.

ALBERT M. HERR,

LOCK BOX 338, LANCASTER, PA.

Mention American Florist.

Mr. Bennett states that this is the finest Rose he has yet raised AND UNSURPASSED AS A WINTER BLOOMER.

THE ROSE OF THE YEAR,
Henry Bennett's New Seedling Tea Rose,

PRINCESS BEATRICE.

"A vigorous grower with stiff, erect wood, thick, handsome foliage, and very free flowering. Flowers well carried on long, stiff stems; large, full and of the most perfect form; petals round, broad and very thick. Outside petals pale yellow, center rich golden yellow; edge of petals lightly laced with bright rose. Most distinct and handsome; a pure Tea. Received First Class Certificate of the Royal Horticultural Society, London, June 23, 1885."

Send for Price List. A beautiful colored lithograph for 25 cents, which amount purchasers may deduct from their first bill.

Mr. Bennett has appointed as sole agents for its sale in the United States and Canada,

HILL & CO., CRAIG & BRO.,

RICHMOND, AND

INDIANA.

49th and Market,

PHILADELPHIA, PA.

Write them for particulars. Plants distributed on the same day both in England and America.

ESTABLISHED 1854.
ORCHIDS
LARGEST STOCK IN AMERICA.

Enclose 2-cent stamp for our new catalogue, containing Practical Hints on growing the Queen of Flowers. Over 4,000 fine plants to choose from

BRACKENRIDGE & CO.

Successors to
A. BRACKENRIDGE,
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John Saul's Catalogue

Of New, Rare and Beautiful Plants, for 1887, ready in January.
It is full in really good and beautiful plants, as well as all the novelties of merit.
The rich collection of fine foliage and other Greenhouse and Hothouse Plants are well grown and at low prices.

ORCHIDS
A VERY LARGE STOCK OF CHOICE
East Indian, South American, Etc.

—ALSO—
Catalogues of Roses, Seeds, Orchids, Fruits, etc., all Free to Applicants.

JOHN SAUL, Washington, D. C.

CHRYSANTHEMUMS.
I am now prepared to furnish plants by the 100 or 1,000 of over 40 of the best varieties. Send for list.

ROSES.
All the leading forcing varieties. Contracts made now for delivery in May and June. Get your stock from our fine, healthy plants.

W. W. COLES,
Del. Co. Lantsdowne, Pa.

NEW ASTERS.

Beautiful New and Striking Variety, "PEARL."
In two colors, Pure White and Bright Rose.

Each color per pkt., 25 cts., per 1,000 seeds \$1.50.
Pot plants of the above, in full bloom, were exhibited by Mr. Zingibiel at the Florists Convention in Philadelphia last season, and were greatly admired by the members present.
HAVE OBTAINED HIS ENTIRE STOCK OF SEEDS, and offer it at the above low price.

Florists' Seeds a Specialty.

per 100 seeds.
Aster, Zingibiel's Double Pure White 10 \$
Boston Florists Double Pure White, (own growing) 10 4.00
Balsam, "Snow Ball" Large Double White 10 .75
Chrysanthemum, Zingibiel's Improved Giant 50 12.00
Stocks, Boston Florists Double White 10 5.00
Hollyhock, our own growing from Chaper's Prize 10 1.50
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Deep vs. Shallow Fire-Boxes.

About twelve years ago my attention was attracted to the subject of fire-boxes, not being compelled to change my heating apparatus from a brick fuel to hot water, because of water backing up into furnace pit from a river near by. The grate of the boiler used was set six inches below the bottom of it. The boiler worked well, but believing that it consumed more fuel than was necessary, the following season I put in a new grate, placing it up to within two and one-half inches of the bottom of the boiler. This change proved a success in more ways than one, as it not only required less coal to fill the fire-box but it required less forcing of fire to boil the water, and it boiled in much less time than before.

Four years ago, in a new house 20 x 75 feet, I placed a much larger boiler of the same make, running it the first season as it was arranged, with the grate six inches below the bottom, burning sixteen tons of coal during the season. The second season I placed the grate up to within two and one-half inches, thus reducing the consumption of coal to twelve tons, saving in the past three years enough coal to heat the house one season free. Among the various improvements which are being suggested in the direction of heating greenhouses this seems also worthy of some consideration.

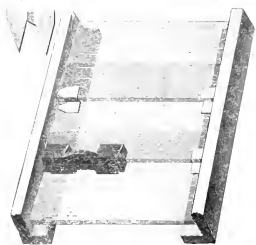
Spencer, Mass. F. F. MYRICK.

WATER UNDER PRESSURE.—I would like to inquire how many 2-inch pipes Messrs. Lonsdale & Burton use in their 18 x 80 house. E. T. HEITE.

SMALL PIPES.—Will some one who has changed from 4-inch to 2-inch or 3-inch pipes for hot water please state the result as to economy of fuel, if any, attained by the change, less cost in piping, etc.?

PUTTY MACHINE.—Mr. Jno. A. Scollay, Brooklyn, N. Y., sends us an illustration of his "putty bulb," which is a thick necked form of the common rubber sprinkler provided with a variety of metal spouts for applying soft putty in glazing.

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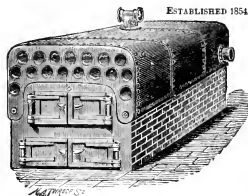
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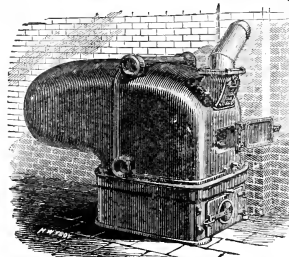
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Index to Advertisers.

Advertising Rates, etc.	329
Allen, C. E.	330
Allen, W. S.	329
Baker, F. A.	331
Bayersdorfer, M. M. A.	330
Co.	330
Boez, Albert	332
Blanc, A.	329
Boek, Wm. A.	330
Boysen, James L.	330
Brackentridge & Co.	330
Breitmeyer, John, A.	330
Sons	330
Breneman & Peterson	330
Burpee, W. A. & Co.	330
Burrow, J. C.	332
Burton, Arthur M.	330
Rutz, Paul & Son	331
Carmody, J. D.	330
Cherry, H. E.	330
Chapman Bros.	331
Clark Bros.	331
Coles, W. W.	331
Craig Bros.	331
Critchell, B. P. & Co.	331
Curre Bros.	331
Curwen, John, Jr.	332
Denton, L. C.	331
Desmond, Wm.	331
De Voe, J. A.	331
DeVine's Rubber Works	331
Dickinson, Albert	331
Dillon, J. L.	332
Dodge & Conrad Co.	332
Dreer, Henry A.	332
Dudley, J. W. & Son	332
Edwards, H. W. & Co.	332
Elliott, B. A. & Co.	332
Estor, J. G. & Co.	332
Evans, Chas. F.	332
Farwell, C. E. & Bro.	332
Fink & Co.	332
Fleischer, John C.	332
Forest Glen Floral Co.	332
Fulweiler, P. C.	332
Gaiser, J. M.	332
Gardings, A.	332
Grashoff, Martin	332
Gray, Benj.	332
Gregory, Jas. J. H.	332
Griffith, Jas.	332
Haines, S. Y. & Co.	332
Hales, H. W.	332
Hall & Thorpe	332
Hall, Wm. P.	332
Hammond & Haidler	332
Hammond's Grape Dust	332
Holz, Chas.	332
Henderson, John	332
Henderson, Peter C.	332
Hendrick, James	332
Hennrich, C. & Co.	332
Herr, Albert M.	332
Higley, Henry G.	332
Hill, C. & Co.	332
Hitchings & Co.	332
Hosker, H. M.	332
Horan, James	332
Horan, C. B.	332
Hess, J. H.	332
Jensen, Ed.	332
Jaynes, H.	332
Jewett, Z. R.	332
Jongkindt, Conrath, A.	332
M. C.	332
Mason, C. H.	332
Kelsey, F. W.	332

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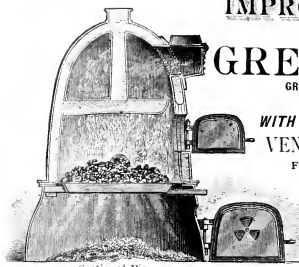
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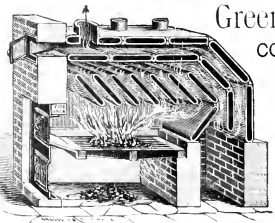
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THE AMERICAN FLORIST



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Vol. II.

CHICAGO AND NEW YORK, APRIL 15, 1887.

No. 41.

THE AMERICAN FLORIST

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GENERAL OFFICES, 54 La Salle Street, Chicago.
EASTERN OFFICE,
Room 81, Vanderbilt Building, New York.

All communications should be addressed to the
general office at Chicago.

SOCIETY OF AMERICAN FLORISTS.—Robert
Craig, Philadelphia, Pres.; J. C. Vaughan, V.
Pres.; M. A. Hunt, Treas.; Edwin Lonsdale,
Chestnut Hill, Philadelphia, Secy. The third
annual meeting at Chicago, August 16, 17 and
18, 1887.

THE EASTER TRADE.—From reports
already received the Easter trade is
everywhere largely exceeded that of any
former year. We expect to present in
next issue a comprehensive report covering
the whole country showing the extent
of this trade in all sections.

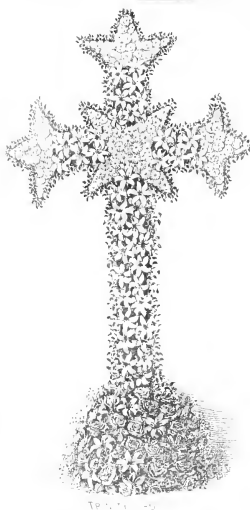
THE MAIL ORDER TRADE.—While we
are not yet prepared to say that the busi-
ness in this line may not prove on the
whole in excess of previous years, yet we
have reports from many firms, whose
tenor bears us out in the following: The
increase in the number of firms engaged in
the seed branch of the business, and
who are pushing for trade, both with
excellent catalogues and heavy advertising,
is certainly out of proportion to any
increase that we are able to discover. If
the trade, now more than half over, does
not materially increase soon, it seems
highly probable that some firms must
retire from business at the end of this
season. We are not inclined to consider
the mail trade in plants so badly over-
done as we believe it is in seeds, but cer-
tain it is that some in the catalogue trade,
in both branches, must suffer from the
remarkable competition of the present
season.

HAIL INSURANCE.—Mr. John G. Esser,
secretary of the "Florists' hail associa-
tion of America" has secured the pas-
sage of an amendment to the general in-
surance law of the state of New Jersey,
permitting the organization of hail in-
surance companies. Thanks are due to
the Hon. Peter Ackerman, of the second
district of Bergen county, and the Hon.
John W. Bogert, state senator for the
same county, for their efforts in securing
the passage of the desired act. The act
allows the company to organize under
the constitution and by-laws previously
adopted by the directors of the "Florists'
Hail association of America." As soon
as the governor of the state affixes his
signature, steps will be taken to put the
company in working order.

April Floral Styles.

BY OUR NEW YORK CORRESPONDENT.

The decorators among our florists have
given much thought in the direction of
elaborate arrangements for entertain-
ments following Easter. There is a



great deal of handsome material to
work with, both flowers and foliage,
consequently grand effects in churches,
ballrooms and parlors will be seen.
Probably the most artistic and carefully
worked out floral picture for Easter is
the one done by Carl Beers for Rev. Dr.
Kittredge's Madison Avenue Church, an
illustration of which will be shown in
next number. The Easter theme is most
beautifully painted in flowers, and the
picture is set in massings of bloom and
foliage with great style and finish.
Frames of foliage have been fitted into
the panels of altars, and carried up very
high. Ivy, laurel, camellia leaves, and a
variety of dark and glossy greenery is
used for the foundation. Effects in
blossoming vines are made upon these
panels.

Banks and pyramids of blossoming
plants are arranged, but more pains are

taken to make them artistic. For in-
stance, a bank of hydrangeas is formed,
no other plants being intermingled, over
this will be gracefully laid a vine of *As-
paragus plumosus*. Lily pyramids are
made narrow and high where these stand
in relief from a frame of foliage. It is
very fashionable to decorate the pulpit of
Episcopal churches with foliage and
blossoming vines, and the lectern with
blossoming plants and cut flowers. The
base of the pulpit is massed with *Rex
begonia* and other varieties of this
species, while the stem is wound with
vines, and the upper part is festooned
with palm and fern leaves. The crescent
and chalice, a combination design, is
very elegantly arranged for the commu-
nion table. The crescent is formed of
white and the chalice of golden blossoms.
The base, for the piece is standard, is
filled with *Jacquemint* roses.

The Trinity cross, of which we give a
picture, is the novelty in Easter crosses,
and is distinguished by having three
points at the end of the top and arms.
These must be well defined in working
out with flowers. There is a four-
pointed star in the center. This is usu-
ally made of a color, while the remainder
of the cross is composed of choice white
blossoms, such as lilies and orchids.
The base is frequently filled with carna-
tions and sometimes with long-stem
hybrid roses.

Undoubtedly the richest altar design
of the season is the "Festooned leaf."
Palm Sunday it created a sensation, and
was particularly elegant and conspicuous,
standing before a group of foliage.
A leaf of *Lantana horbonica* measuring
four feet and nine inches across, has
placed on it just below the edge fringing
a row of two dozen *Lilium longilorum*,
and under these a line of selected *Jacque-
minot* roses, fifty in number. A thick
clustering of hily of the valley rests be-
neath these, and from these to the stem
is a covering of Neapolitan violets. The
stem, which is three feet long, is plunged
in a bed of moss. It is garlanded with
asparagus, or left naked. The mossy
bed is planted with long-stem roses.
This festooned leaf will have a "run,"
for it is effective for most any position.

The favorite French fish basket has
been remodeled for an Easter souvenir,
or table center. The handle has been
made higher and the basket is no longer
straight up and down, but it gracefully
hollows in toward the base. The satin
violet is out of style, and a coil of ribbon
takes its place. The basket is so
formed as to accommodate a plant grow-
ing, and besides this a cluster of cut
flowers or a working of foliage is em-
bedded. The following are the most
stylish combinations for putting in these
baskets: one with handle and edge
bound with pale blue satin ribbon is
filled with a blossoming plant of *Merville*

de Lyon rose; there is a cluster of white moss rose buds and a profusion of Narcissus poeticus. A pink trimmed basket is filled entirely with Cottage Maid tulips. A cardinal satin-bound basket contains only the leaves of Begonia Rex and Asparagus plumosus vines scattered over it. A yellow trimmed basket contains daffodils, and one bound with Nile green is filled with lily of the valley. Selected La France and Gloire de Paris roses fill a basket edged with pink satin. The Easter lily basket contains a plant of *L. longiflorum*, clusters of *L. candidum* and callas, and lilies of the valley set out below.

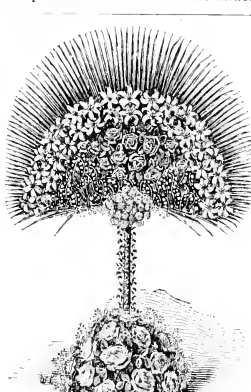
Very costly violet designs are now the vogue for funerals. An entire casket of Marie Louise variety made for a funeral this week had a pillow and crown composed of the same flower resting on top. There were 27,000 violets in the piece. It was made by Hamf Brothers. An arrangement for Miss Catherine Wolfe's casket was also exquisite. A valence of violets hung around it from the top edge, and this was fringed elaborately with tassels of lilac. It was caught up at intervals with bows and ends of satin ribbon to match in color. On the top of the casket rested two palm leaves held by a cluster of Puritan roses. At the foot lay a superb artistic wreath of violets tied with purple satin ribbon. It is now fashionable to decorate the pew in church of those who die, and then keep the flowers fresh by renewal for a certain length of time. Miss Wolfe's pew in Grace church was entirely cushioned with violets, and the wood work was all covered with a veneering of these. An elegant touch, suggestive of Klunder's taste, was a violet scarf carelessly thrown over the back of the pew and finished with a very heavy satin bow of purple ribbon. This decoration will be daily renewed for one week. It is quite the style to hang funeral wreaths in apartments where the dead are laid. Some of these are very elegant; they are made up of long-stem pink and white moss rosebuds, and fastened with a cluster of flowers that hang down in a very graceful and ornamental way.

Several novelties appear for Easter weddings: one of the richest is the "lily bower," which is made in an arch or hay window. The walls and ceiling are entirely covered with foliage and the canopy that extends from the arch is made of lilies. Inside the bower are a profusion of lily plants which make an effective base. At the foot of these and banking the pots is a pansy border. The Campanello bell is hung in the bower at the edge of the canopy. It is made half of white lily of the valley and half of these dyed pink. Inside it is composed of myrtle bloom. The bell has a garland of selected *Vermet* roses, but arbutus will be used for this finish as soon as it is in flower. Ceilings of greenery are very popular, as are all gardenesque effects in rooms. They are of course expensive. Suspended strings of asparagus of irregular length make an elegant ceiling draping. The appearance produced is misty. Delightful foliage effects in rooms are made behind the mantel-piece the full width of the mantel up to the ceiling. Reliefs in green and cypripediums show off grandly here, and when a bank of flowers, say *Jacqueminot* roses, tulips, or any blossom of decided tint, are run up at this side on the mantel, the embellishment is splendid. Thorpe's new carnation "*Anuladua*" is glorious for this purpose.

The favorite piece for mantel decoration

tion or to place on a piano or tripod, is a cylindrical basket eighteen inches high, of Japanese straw. In this is placed a lily plant. The soil is mossed over and then covered with lily of the valley. Around the basket midway a sash is tied; in this a cluster of roses.

Reception and opera bouquets are composed of *Jacqueminot* roses and *mignonette*. Bridal bunches are invariably of lily of the valley and will not change until after Easter tide. Bridal gowns are trimmed elaborately with this flower and *Narcissus poeticus*. Clusters of yellow primroses and wall-flowers combined



THE FESTOONED LEAF.

are worn considerably by dowagers, and camellias are used for finishing drapery of velvet frocks.

Easter week some fashionable dinners are to take place, but styles are not yet given out, florists being so much engaged in church and room embellishments.

Spring Flowering Plants.

BY W. A. MAXON.

There is certainly no class of plants which is more deserving of general culture than this. Yet how seldom do we meet with them, and then we only see some poor specimens planted without any effect whatever. By judicious selection of such plants many a bed and place in the garden could be made gay in the early spring which otherwise might be left empty until the end of May, when annual or bedding plants are set out. In addition to hyacinths, tulips, pansies, double daisies, English primroses and forget-me-nots, which are too well known to need any description, there is quite a number of plants well adapted for the same purpose which will give a great variety of colors and habit.

The *Arabis albidula*, a native of Europe, is a lovely spring bloomer. The whole plant never exceeds one foot in height and the pure white flowers are produced in great quantity. Seeds vegetate freely, but it may be also propagated from cuttings.

The *Phlox amena* is one of the finest plants of this class. It is found wild in the eastern states, grows from six to nine

inches in height and produces large heads of beautiful pinkish flowers, forming one mass of bloom. The best way of propagating this plant is by cuttings.

Alyssum saxatile is a very beautiful European plant, and valuable on account of its bright yellow flowers which are produced on branching stems one foot in height. This plant likes rather dry and sandy soil and grows readily from seed.

Polemonium reptans, one of our native plants, is also desirable. It grows six to nine inches high and forms a mass of delicate lavender flowers. Readily propagated from seeds, also by division.

Aquilegia glandulosa is, without doubt, the finest of the numerous species and hybrids. The flowers are very large, sepals beautiful blue, while the petals are white, giving it a very charming appearance. It is best grown from seeds. Not less valuable is the *Aquilegia canadensis*, our common columbine, which is useful on account of the reddish color of the flowers that are produced in such a quantity. It is best raised from seed.

Shepherdia Holosteria may be used to good advantage. It grows about eight inches high and forms a mass of pure white flowers. Easily grown and propagated by division.

Doronicum caucasicum is a very valuable and showy plant, growing six to twelve inches high and bearing numerous, large bright yellow blossoms, not unlike small sunflowers. As this plant seldom ripens any seeds, it is best to propagate it by division.

Many other plants of equal merit can be recommended where a great variety is desired. The above forms are among the best and most easily cultivated.

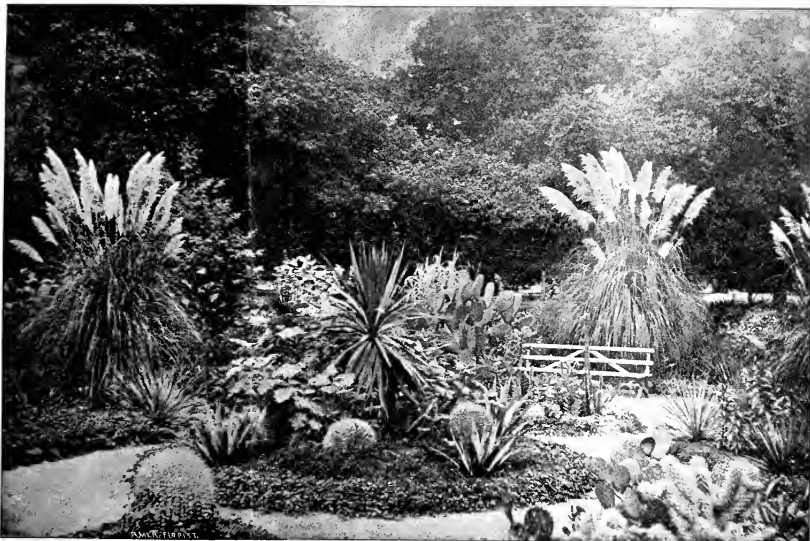
Cambridge Botanic Gardens, March 12.

Advantages of Horticultural Exhibitions.

I had the pleasure recently of being present at the Spring exhibition of the Maryland Horticultural society, held in Baltimore on the evening of March 10. My visit led me to reflect on the advantages of such exhibitions to the practical florist, and although my reflections were prompted by observations at home, they will, I fear, be applicable in many other localities.

The great bane of horticulture to-day is the very apparent indifference of too many florists as to the success of any project calculated to advance and elevate their profession. Most undoubtedly the florist business is most successfully carried on in localities where the most public interest is evidenced in horticultural matters; therefore—it is very clearly a duty which every florist owes to himself, that he should use all the means in his power, to create and foster public interest in his profession, and in no better way may he accomplish this, than by taking an active interest in the horticultural societies, and exhibitions to which he has access and giving them practical support, for such exhibitions not only serve to keep public interest alive, but they tend to create that interest where it does not already exist, and at the same time afford to the public, favorable opportunities of forming a proper appreciation of the florist and his profession.

It is, however, an unfortunate fact, that wherever floral exhibitions are held, growers are to be found who never appear in the role of exhibitors; it is difficult to find a satisfactory reason for such remissness. Flower shows cannot be successfully held unless supported by the profession, and I can hardly imagine a



VIEW IN THE ARIZONA GARDENS, MONTEREY, CAL.

florist who does not realize the advantage of bringing himself before the public on such occasions; true, as a delinquent friend recently remarked, "the premiums offered are frequently small and do not repay the extra labor incurred"; this, however, is carrying the "love of the dollar" too far; the legitimate striving for the *honor* of the premium, is laudable and proper, but no florist should permit the intrinsic value of the premium to regulate his support of the exhibition; and the florist who cannot afford a little extra labor on such occasions, is not extra blind to his own interest, but lacks the enterprise which should characterize every business man. I have also been met with the argument that "the premium list fails to provide for anything" in some particular florist's line, and therefore he has nothing which he can exhibit, but in such cases it must be borne in mind that exhibitors are not limited in above sense by the premium list, and since a grower can only cater to the public with such stock as he deals in, it is this same stock which he is privileged to bring before the public through the medium of the exhibition. Every business man appreciates the value of advertising, and while our flower shows offer to every florist an incentive for the attainment of the highest cultural perfection and an opportunity for friendly competition with his contemporaries, they, above all, offer him a most valuable, and by long odds, the cheapest advertising medium within his reach. A very successful florist recently said to me that during his business career he had netted thousands of dollars, the result of his exhibi-

tions; personally, I can bear testimony as to the substantial benefits arising from persistent exhibiting; my experience is the experience of florists in every section, and right here let me give expression to the wish that mine were "the pen of a ready writer," if haply I might imbue the sluggish members of the profession with some measure of enthusiasm, in this, and everything else calculated to ennoble and elevate a profession, the oldest in the world, and containing boundless treasures for the intelligent mind.

Although horticultural societies and exhibitions offer numerous advantages to the florist, I have confined myself to a hasty notice of one, which I regard as most important, viz: the opportunity afforded the florist of bringing himself and his wares prominently before the community in which he resides, and from which his income must chiefly be derived. Flower shows can only be rendered attractive to the people, by the florists themselves, and a poorly filled exhibition hall always strikes me as a sad reflection on the energy, and professional pride of the neighboring florists. There is much room for improvement in such matters, indeed, I am afraid the best of us would bear a little brushing up, and a fresh infusion of zeal for the elevation of our profession and the social status of its members.

A. W. M.
Liberty Road, Baltimore.

HAVE YOU secured a copy of the new trade directory, published by the American Florist Company, Chicago? It is a valuable book to every one in the trade.

The Arizona Gardens, Monterey, Cal.

Our view in this issue shows a bed of cacti and plants of a similar character as seen in these gardens. The pampas grass in the back ground adds not a little to the general effect. From the daily press we learn that the beautiful Hotel del Monte, of which we gave a view in a previous number, was destroyed by fire April 1, but will be at once rebuilt. We expected a description of these gardens from Mr. R. Ulrich, the landscape gardener in charge, for this issue, and presume that his neglect to send same is due to the occurrence of the above-related disaster.

A Visit to Bryn Mawr, Pa.

Mr. John M. Hughes, gardener to Geo. W. Childs, of Bryn Mawr, Pa., having shown some very fine buds of the Bennett during the past winter, a few Philadelphia florists recently visited the green-houses of which he has charge to see where they were produced. In the forcing houses everything was in excellent order. Those who have hitherto maintained that each variety of the rose demands a separate house for its special requirements, will, after a visit to this place, be compelled to admit that they have been mistaken. Here are to be seen American Beauty, La France, Bennett, Meimet, The Bride, Perle, Sunset, Bon Silene and Niphetos in the same house, and all in the best of health. Not one seemed to be doing any better than its neighbor, but all averaged better than the usual run of plants in other establishments, and the blooms would com-

pure favorable, with the best exhibited at the recent Philadelphia show.

In the palm house the plants were the picture of health and vigor, and a specimen of *Cibotium* regale in the fernery was perhaps as fine as any in the country. *Lechadonia pendula* and *L. quadricolor* are used here to advantage in hanging baskets—one variety in each basket—and a more beautiful object than a well-flowered basket of these old plants it would be difficult to find. The wonder is that they have not been more extensively used for this purpose. Among the collection of primroses which is second to none in the country, two varieties—a white mounted with pink, and a carmine, were exceptionally fine, both as to coloring of flowers and condition of plants. An immense quantity of bedding plants are being grown for use the coming summer. Wootton has its attractions in winter as well as in summer.

We next visited the place of Mr. N. Parker Shortridge to see a plant of *Bougainvillea spectabilis*, of which we had heard considerable, and we were well repaid for our trouble for a most gorgeous sight is seldom seen. The plant is trained as a standard to a height of about eight feet. The top, some eight feet in diameter, is supported on wires and was one solid mass of light purple or mauve-colored bracts with here and there the bloom proper protruding, tipped with gold.

At the summer residence of Wm. P. Henszey, Esq., we found some well-grown specimens of orchids, amongst which were *Deudrobium Warhamsii* and *Cocloglossa cristata* covered with bloom. The whole place was in excellent order, reflecting credit on Mr. Chester Davis who has charge. J. W.

Camellias and Azaleas.

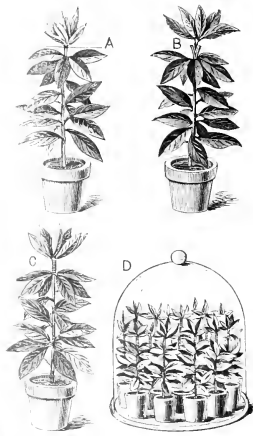
Continue to treat these as directed in Mar. 15 number. Now is the proper time to graft the azalea, while the wood of both stock and improved kind are young. Any strong, erect grower will answer for the stock, and probably the old single white azalea will be the best for this purpose. Plants one year old are the most suitable size to graft upon, they are generally at this age, ten to twelve inches high. Most azaleas seen with fine, round heads branching about twelve inches above the pot are grafted plants.

It is difficult to graft old plants; better march these during July and August. Fig. A shows the single stock one year old upon which to insert the graft of the improved kind, remove only the smallest tip end from the top of the stock. Let the wood of the improved kind be also very young and soft; had hardened wood will not answer for azalea grafting. After removing the top, split down or make an opening to receive the graft not over an eighth of an inch. Slice or pare each side of the graft; if wood is so young that it cannot be sliced to make a cleft or wedge graft then scrape it, when completed it should have the appearance of Fig. B. Tie with thread as in Fig. C, after which they should be placed in a close frame for a few days or under bell glass, as shown in engraving D.

Do not allow your grafts to wilt down before getting them in close quarters, shade well for the first few days, they will unite in four or five days, but require the close atmosphere of the frame or bell glass for two or three weeks, after which they can be hardened off gradually. This work is simple and easily

performed, and with good success. Bear in mind, you are cutting heads and limbs off, and to meet with success they require bandaging and attention without delay, when wounds are open.

The wood of the azalea at this time is also suitable for propagating by cuttings, and will root more freely than at any other season. Give them the coolest part of your bench; probably better success will be gained by placing them in boxes, which can be conveniently handled, so they can be removed to suitable places as the season advances. They are very subject to red spider, thrips, etc., and often require removing to other places than where first placed.



Good, clean sand is not only a necessity for the azalea, but for all plants, if you wish them to root freely. Good, Sharp sand, of any color, free from clay, will answer, white, blue, black or brown, from river or bank. Sand is cooling to the wound of the cutting, and causes it to heal, callus and root earlier than if placed in soil. So soon as cuttings produce roots one inch or so long, they should be removed to soil, as there is nothing more in the sand to support and strengthen the cutting after it is once rooted.

Much is said about fungus in the cutting bed. Renew the sand often; don't attempt to grow healthy cuttings in sand that has been cropped fifty times. There is no department which calls for cleanliness more than the cutting bed. Have your propagating bench in that portion of the house where sunlight can be had; darkness can be had by shading; light is essential in this department. Sunshine cannot always be had, but I prefer it to damp and mold amongst the young plants.

For the multitude and those who do not grow plants by the millions, always have cutting benches, where you can have command of sunlight, as your general propagating is done from September to May. Those who grow in June, July and August, don't need information. I have got off the track on azalea propagating, and am afraid if I continue, will

get down to north and south side propagating, so will cut short and return to azaleas. Make cuttings of azaleas from one and a half to two inches long; artificial heat is not required to root them. Keep well shaded for the first week or two; do not allow them to wilt, syringe night and morning, keep a moist atmosphere, and they should root in from four to six weeks. R. J. H.

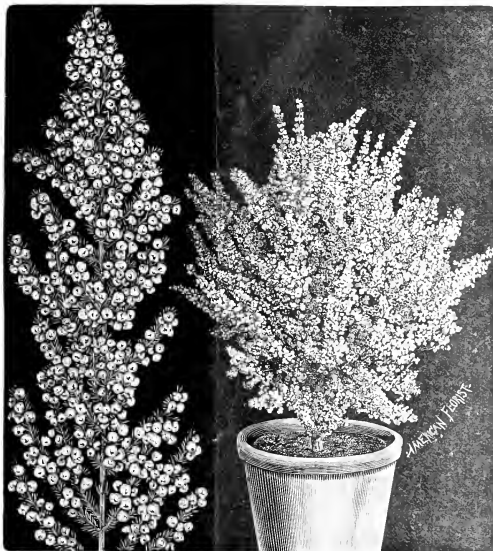
Heaths.

The plant and spray from which the engraving was made was grown by Mr. Thomas Young, Somerville, near Boston, Mass. Mr. Young has for several years made a specialty of this particular variety. It is a selection of his own, from a batch of seedlings, the result of a cross between *Erica Caffra alba* and *E. rubra*. It is claimed that it is superior to either of the parents, the individual flowers being larger, and they are more closely set along the branches. Heath, or heather, as it is sometimes called, is being used in New York and Philadelphia, as well as Boston, as a cut flower, the supply generally coming by way of the latter city.

Last Christmas, at Pennock Bros., Philadelphia, a spray of *E. Wilmoreana*, eighteen inches long, attracted a good deal of attention amongst the local talent. It came from Mr. John G. Gardener, gardener at the Ranococas greenhouses which are connected with the stock farm of Pierre Lorrillard, Esq., at Jobston, N. J.

On writing to Mr. Gardener I received a letter in reply, which I will read to you: Mr. Lonsdale, Dear Sir: Your letter of inquiry as to the cultivation of *Erica Wilmoreana* in this country is received. In reply I have been like many other gardeners, under the impression that this climate was not suitable for the cultivation of heaths. I have seen here and there a few *ericas* around Boston looking well and thrifty, but they were generally of the hard-wooded type, and not so suitable as the softer-wooded sorts to cut from. I have frequently spoken to some of our leading gardeners and florists about the useful additions *E. hyemalis* and *Wilmoreana* would be to our list of cut flowers and pot decorative plants for the winter season. All seemed doubtful, and some went so far as to say that it was impossible to grow them here. One practical florist argued from the standpoint that it was useless to attempt to grow *ericas* in a country where none of the family are to be found growing wild. The sprays of flowers which you saw, and my own experience the past three years has clearly demonstrated that both *hyemalis* and *Wilmoreana* can be grown satisfactorily and profitably. A plant in a 6-inch pot eighteen months old will produce ten or twelve sprays like the one above referred to. I have grown them planted out in open ground and in pots, with equal success in each case. I prefer, however, to grow them in pots.

The soil they must have in both cases is peat, sowed upland peat, that which contains plenty of fibre and sand. Sand must be added if it is not found in the soil naturally. The two varieties mentioned, being soft-wooded varieties, are consequently free-growing sorts and they will be grateful for a liberal supply of root space. In potting, complete and effective drainage is the essential to success. All good cultivators will understand what is meant by that. The plants must be potted *firm* and as soon as all danger from severe frosts is over they should be plunged, up to the rim of the



WINTER FLOWERING HEATH

pots out of doors, in sand, ashes, refuse hops, or any available material, which is easily handled, and through which the water will pass quickly and freely. With all safeguards carefully attended to, as to there being no possible chance for stagnant moisture to remain around the plants, water may be given freely, for upon no consideration must the plants ever be allowed to become dry. No plant suffers so quickly as the heath from excessive moisture, or the opposite extreme.

"About London large quantities of these plants are grown, but they are thrown away after the second year. Young plants are preferred as the older ones would become too large for their trade. Six, seven or eight-inch pots are large enough for general purposes for decorating but when cut flowers are the main object, I prefer a larger size. It should be understood that old plants are being used. I would pot them into the size known as 10-inch. After the plants have completed each year's growth, cut it back to within one inch of the *previous* year's growth, at the same time keep in view the symmetry of the plant. When growing plants in the sized pot recommended, the peat used should not be sifted, but cut up into suitable size with a spade; the object being to retain the fibre; to assist in keeping the soil porous, mix broken pots, soft bricks and charcoal, with the peat. These will serve to keep the soil open after the fibre has decayed, aiding in the free passage of the water, which fine rooted plants like heaths must have or die.

"Another desideratum in the success-

ful culture of heaths is the location out of doors in the summer time. They must be sheltered from draughts and strong currents of air, yet they must have fresh, pure air and sunlight. A little shade at noon, and for a few hours thereafter, will be an advantage, when the plants are growing for cut flowers; it will have a tendency to draw the sprays out longer. I have cut sprays twenty inches long from plants which were exposed to the north and west, and shaded by a row of evergreens in the south. Ericas will stand some frost with impunity provided they are shaded from the sun when the thawing out process is going on. From 35° to 40° at night is warm enough in the winter season. If allowed to remain in a close and higher temperature any length of time, when they are setting their buds, the plant will start to grow and the blossoms will be a failure. Fresh air must be given them all through the winter season on every favorable occasion, and with a little study as to their requirements, I do not see how any careful man could fail to grow them profitably. I feel sure there will be a ready sale for them in all the large cities of this country." Yours sincerely,

J. G. GARDENER.

At the banquet of the florists' club, of Philadelphia, Mr. Gardener had a few beautiful sprays of Erica Cavendishii. He is very enthusiastic about heaths, and declares they grow like weeds with him. Every practical cultivator will agree, I think, that Mr. Gardener administers to the wants of his plants liberally. It is no trouble to him.

E. L.

Winter Heaths.

The range of varieties of heaths which flower during the autumn and winter is not wide, but what there are cannot be dispensed with where there is a great demand for flowers. The best autumn-flowering sorts are *hyemalis* and *gracilis*. The first named is one of those which are known as soft-wooded heaths, and it requires to be pruned rather severely after the flowering season is over, treatment quite the opposite to that required by the hard-wooded section, which flowers during summer. I may remark that *hyemalis* and *Willmoreana*, to which I shall refer presently, require more warmth than the other section. For this reason they should have less air than is given to the majority of heaths, and if large, healthy plants are required they must be kept under glass all the year round. I am aware that trade growers turn their stock into the open air during summer, and obtain satisfactory results; but for the most part they deal with young stock only, which is quite different from plants which have been exhausted by flowering and whose growth has been cut back, and plants I find it necessary to deal with liberally, and then I can ensure getting the season's shoots from eighteen inches to two feet long, with a proportionate length of flowering wood upon them.

As soon as these two sorts, *hyemalis* and *Willmoreana*, go out of flower, all the last year's growth should be cut back to within one inch of the old wood. The plants should then be placed in the warmest corner of the greenhouse, and should only receive just enough water to keep the soil moist. After they have rested a few weeks, they must be shifted into pots one size larger, until they reach pots ten inches in diameter, in which they may be allowed to remain two years. Good peat and a fair sprinkling of silver sand are all that they want as regards soil; but it is necessary to pay particular attention to the drainage, for all heaths are very impatient of water stagnating about their roots; indeed, I may say at once that careful watering and giving constitute the whole secret as regards managing these heaths in a satisfactory manner. It is especially necessary to give water to the roots with care, from the time when the growth is cut down until active growth again commences, as during this period they cannot use up much moisture, and if they get an excess of it mildew will attack the coming growth as it appears. They should be allowed to stand in a close corner of the greenhouse until the new growth is three inches long. They may then be brought out to a lighter and more airy position, and during the summer months a thin shade should be put on the glass. During a hot weather they will require air both night and day, and plenty of it, and at the same time the root moisture will have to be increased.

As a matter of fact they will require for the most careful attention at all times, for until one has thoroughly tested the capability of the soft-wooded (*Willmoreana*) to form large and handsome specimens, an idea cannot be formed of its value for that purpose. I have had this variety of heath so large that it required two strong men to cut it. Such examples are valuable to cut from and they make striking subjects during the months of January and February for the conservatory. Mildew sometimes attacks the plant, but if taken in time it may be destroyed by dusting the affected part with sulphur. Other two varieties which I have grown for winter-flowering are *gracilis* and *mel-*

anthera. The individual flowers of these are small, but they are produced in such numbers that a large plant is quite effective, when other flowers are less plentiful than they generally are in spring. For that reason, two or three large plants of each should be grown where winter flowers are required. Although these plants will submit to pruning, and to be kept down to a small size, they do not take kindly to restrictive measures. In fact, if small plants are required, it is better to depend on young ones. Being more hardy than the other two I have mentioned, they may be grown with the hard-wooded section and treated in the same way, and after they have made their growth (which will be about the end of July) they may be set out of doors. Where one has to grow this class of plants along with a mixed collection of plants, they should have the coolest end of the house, as they only require sufficient fire-heat to keep them safe from frost.—*J. C. C., in London Garden, Jan. 22, 1887.*

A Mediæval Flower Show.

Flower shows a many has New York seen, within the past year or two, but a flower show in old London, with odonto-glossums in the lee of the old Devil's Tavern, whose sign bears an authentic picture of St. Dunstan administering the hot iron treatment to the father of lies himself, is certainly a novelty. Messrs. Siebrecht & Wadley are the presiding geni of this affair, and it is well worth notice. Ye olde London streete, at 728 Broadway, has been one of our Loeten attractions, and a very clever conceit it is. On entering, the hanging eaves of the building devoted to the Worshipful Goldsmiths Company bear plaques of echeverias and other succulents, lightened by tulips. The Isaac Walton Shoppe where, by an odd association of ideas, the vendor supplies Parisian flowers and perfumery, shows a fringe of ivy-leaved geranium; trailing vincas and ivy decorate most of the other buildings.

One large central plateau displayed some of the fine latanias which we look for at Rose Hill nurseries, and was massed with marguerites, and hydrangeas, bordered by tulips, astilbe, and miscellaneous stuff. Some yellow masses of genista lightened nooks here and there among the moss-grown gables—moss-grown for this occasion only. There was a fine nepenthes or two, the wonderful insect-eating plant, as it was described by a mediæval artisan with a distinctly modern New York accent.

A good table of orchids produced the sensation always accorded these plants. *Cypripedium Lawrenceanum* looked fresh and sturdy, as it ever does; *Dendrobium nobile*, though good, was a little bit the worse for wear. Some good anthuriums were noticeably attractive. The approaching Easter-day was suggested by groups of *Lilium longiflorum*. *Platycodon* looked distinctly in their element here, about these presumably time-worn walls.

Every plant was put just where it would do the most good, and the ensemble was perfect and harmonious. "The Roseries" it was called, though this was a misnomer, for roses did not predominate, though there were some fine cut blooms, and, wonderful to relate, there wasn't a single brand-new rose visible! The proud possessors of these flowers are waiting to astonish us at the coming show of the Horticultural society.

The old Queen's Head and Bishop's gate made a singular combination with the tropic foliage dotted about them, and

the attendants, who were clad in trunk hose and a little brief authority, were not the least curious part of the exhibition. The flowers certainly added much to the attractions of the place, and we may safely describe this as the most novel flower show we have yet been favored with.

—EMILY LOUISE TAPLIN.

The Exhibition of the New Orleans Hort. Society.

The first exhibition of this society, held March 23 to 28, was a remarkable success. The society was organized but eighteen months since, and as the membership was small we had some doubts as to its success. With our mild climate—plants blooming out of doors in February—we feared that the people might not patronize a flower show, but all doubts have been happily removed. We found that our people were willing to pay for such an exhibition, and success has crowned our efforts.

The two halls, one 50x100 feet, and the room adjoining, 40x60 feet, were elaborately decorated with cecyls, ardisias and latanias (Sabal Adamsonii), and the floors laid out to represent a handsome landscape garden. The beds were each assigned to the several exhibitors to be arranged according to their own taste, without however marring the general effect of the rest. Most beautiful and large collections of palms, crotons, caladiums, begonias (Rex and flowering), gloxinias, azaleas, coleus, geraniums, euphorbias, agaves, dracenas, orchids, araucarias, anthuriums, sago palms, petunias, etc., were to be seen in all their splendor and beauty; also most artistically arranged carpet beds of foliage plants were scattered here and there, to make the effect most striking. On cut-flower day the largest and finest display of roses, perhaps seen in this country, was made; something like 350 distinct varieties of roses, including all classes, were shown, the flowers being most perfectly formed.

On "Floral Work" day some most elaborate pieces were displayed, notably a large urn, standing fully five feet high, made of pale colored roses; a large crescent made of Marechal Niel roses, encircling a lyre of Marie Henriette roses; a large easel, supporting a plaque, composed of Bennett, Jacque, polyantha and white roses; this piece was fully seven feet high by four feet wide; a large banner standing fully six feet high, composed mostly of roses, with the initials N. O. H. S. made of heliotrope and violets; a 7-inch wheel bicycle, made entirely of roses, and a large globe surrounded by a crown, composed of roses.

Among the funeral designs was a piece representing a rock of white roses; upon the side was a cross of M. Niel roses, and above the rock was a crown of Sago palm branches, under which a dove was poised. Also a handsome frame, with portrait of President Garfield, resting on a bed of moss, the frame proper being composed of roses, candytuft, and adiantum, and decorated at the corners with a cluster of purple pansies and pink roses. A magnificent basket for table decoration, was composed of a bed of ferns, half of the basket being loosely filled with pink roses, the other half with red, the whole arched with orchid blossoms. This piece measured fully four feet in length.

Being so well encouraged by the success of our first attempt, we propose this fall to have a grand chrysanthemum show, when we expect to exhibit about 600 or 700 distinct varieties, the show to last two days. H. A. DESPOMMIER.

Notes and Comments.

NEW YORK AND VICINITY.

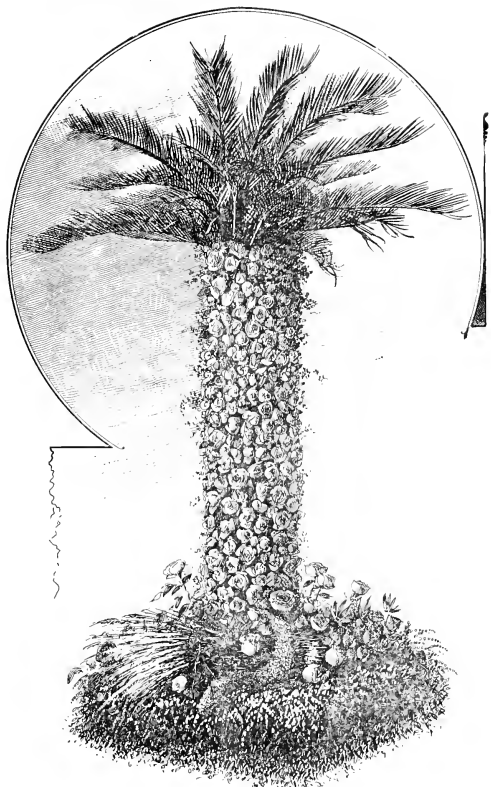
White-winged peace once more broods over the New York Horticultural society; diverse opinions relative to the late lamented chrysanthemum show have been reconciled, and the society is settling down to business in a truly refreshing manner. It has been strengthened by the accession of new members, and the prospects seem much brighter financially as well as horticulturally. It is to be hoped that the spring show, to be held in the Eden Musee during the last week of this month, will be as great a success as the Orchid exhibitions; certainly no pains will be spared to make it successful in every way. The new president of the society, Mr. Spaulding, offers a handsome silver vase for the best new design, which will doubtless call out the creative genius of our florists. At this show, the complimentary tickets are to be limited in number, at a good many former exhibitions the society was rather too liberal in this respect. The desire for deadhead tickets seems to be the most deeply rooted passion of the human breast; we all have a hankering for them—but the system certainly does not pay.

There is to be a flower show over in Jersey the week previous to the New York exhibition; Orange is again going to show what she can do in that line. If this approaches the Orange chrysanthemum show it will be well worth seeing. Our friends over there have a very thorough way of doing things, and much-derided New Jersey is not at all backward in horticulture.

There was a new rose at the last meeting of the Horticultural society, displayed by Mr. Ernest Asmus. It is a hybrid tea, between Madame Falcot and Baroness. Its possible value is as yet undetermined.

What with bad weather, disease, and assorted entomology, the florist's lot is not a happy one just now. They seem to be getting all the plagues of Egypt at once. One of the most recent aggravations is a worm, which makes a steady diet of smilax. It is a dirty, gray caterpillar, which seems almost, if not quite, identical with the species found on tomatoes and corn in the summer. It only comes to feed at night, remaining hidden in the soil during the day, and its voracity is almost unparalleled. Its ravages are felt in a great many cases, and it has resulted in a decided scarcity of smilax this Easter. Any genius who would discover an effective remedy for this pest would be a benefactor to his kind. At present, the only thing one can do, is to hunt up the invaders by lamplight. They appear to enjoy hellebore; it does not inconvenience them in the slightest degree.

Another trouble was reported at the horticultural meeting; a new and mysterious disease affecting roses. The plants affected were Mme. Cusin; without any warning the foliage appeared to droop somewhat, and the next day every leaf fell off. There was no apparent reason for this, and, strange to say, some Bon Silences in the same house were not in any way affected. There was no trace of sewer gas, nor had the grower been experimenting with fancy fertilizers. It is certainly a strange disorder; one would imagine that it was caused by some fungoid growth. Microscopic examination might throw some light on the matter. A good many of the plants were found to be club-rooted, but there was apparently no other unnatural condition. Mr. Peter



A FLORAL PALM TREE

Henderson says that many apparently unaccountable plant diseases may be traced to a cellular derangement; of course, anything that lowers the vitality of a plant renders it liable to disease. It is to be devoutly hoped that this new complaint will not prove infectious.

The New York society intends to discuss the question of heating by hot water under pressure at their next meeting. This system seems to be regarded with a good deal of respect by many. It was suggested that they might debate on the well-worn subject of steam versus hot water, or talk over hail insurance, but both these subjects were regarded with cold scorn. The members seemed to look upon them as what is vulgarly known as a chestnut.

Flower shows seem to be blooming all over just now. "Ye Olde London Streets" up on Broadway, which is supposed to be an authentic representation

of old London, had a flower show as an additional attraction, and it seemed to take very well. Klunder had an Easter opening, rather than a show; it was, of course very artistically arranged, the window especially so.

Of course there is always the chance of outdoing flower shows, like roller-skating rinks, but anything that popularizes plants will help the trade, no matter how disinterested we are.

Really, we want to encourage plant growing among amateurs, of moderate means, as much as anything, and in that particular point our English consins are way ahead of us. Still, the present outlook grows more promising, and the increasing patronage accorded to horticultural shows is of itself a good sign. Taken all round, we may consider American horticulture a very promising infant.

EMILY LOUISE TAPLIN.

A Floral Sago Palm.

Our illustration on this page is of an unique funeral design recently arranged by Mr. Chas. Reissig, a florist of Chicago. The trunk of the palm was of solid La France and Niphetos roses interspersed with bits of adiantum ferns, while the top was the head of a real plant set into the top of the trunk. The base was a mass of loosely-arranged hybrid roses, fringed with lily of the valley, and a sickle of violets lay across a sheaf of wheat at one corner. The complete design was six and one-half feet in height.

Failure and Success.

Each day we have been expecting milder weather, but each day seems only to intensify the cold. At this date writing—March 31—the thermometer at 6 a. m. registered only 10° above zero. Such cold at this time of the year is exceptional and taxes to the utmost the ability of a florist to keep the plants under his charge in good health. At no time of the year can the skill and the experience of the gardener in charge be more accurately gauged than at the present. The weeks of excessive firing that are necessary through every winter assuredly tend to weaken and thus deteriorate all classes of plants requiring a lower or medium temperature. Insects, too, are encouraged by these conditions to multiply with rapidity. Where is the house in which some traces of spider cannot be seen after firing has been kept up for some time?

If the manager is observant and careful, all these depredators will be held in check and means constantly used to prevent their ravages. Each day, through the stormy months of winter, will bring fresh conditions needing different applications. Unremitting care is needed to carry plants in good health, through these perplexing changes. If, however, the oversight is negligent and unservant, striving only to obtain that measure of success which will accompany the smallest amount of labor, the condition of plants under such management will be poor indeed, and when the mild weather does arrive, instead of the marked improvement which will be sure to attend healthy stock, these plants will continue to show the signs of inferior cultivation.

No plant will repay congenial treatment through the winter, and none will show the results of that which is detrimental sooner than the carnation. Treated properly during the cold weather, these plants should now be loaded with buds, and quantities of flowers ought still to be gathered from them. Let the wrong methods of cultivation be applied and their appearance will be most miserable. To ensure success but one rule can be given: study and apply. If failures have been made during the past winter, ascertain the causes and avoid them for the future. What is possible to one is possible to all. No man reaps a harvest except by steady and constant effort.

Moreover, if we would have our efforts peculiarly successful, not only have we to be laborious in our care and watchfulness of our stock through the winter, but we must exercise good judgment in that which we grow for the spring market; we must use foresight and be sure that when one crop is through with plants to produce another will be ready for succession; for, if the hedges are empty, we experience a loss which cannot be regained.

But, though this is absolutely neces-

sary, it is, also, just as essential that we should be sure that the plants grow and be marketed at a profit. It is comparatively easy to propagate a number of plants and grow them on to a salable size, but it is not so easy to decide as to which class of plants is most likely to be in greatest demand. All this knowledge can only be gained by attention to business and careful and systematic study from year to year. These thoughts are suggested as we near the conclusion of this winter's experience. Some have been successful and some have failed. Let those meeting with but poor success be not discouraged, but, remembering past mistakes, seek to avoid them in the future.

A. E. W.



Stocks for Graft ng.

Mr. E. G. Hill, in his article in the last issue, has touched upon a very important subject, one which is of general interest. I only wish he could have given us something more definite as to the stocks to use for each section of roses—that is, the best stock for each group, taking the groups as being represented by, first, tender roses to be grown in bush form, allowing these to be represented by such as are known as teas, *Perle des Jardins*, to be the strongest and *Ma Capucine* the weakest. What stock is best for *Perle*? What stock is best for *Ma Capucine*?

2. Tea roses to be grown in bush form, taking *La France* as the strongest, or if better, lady Mary Fitzwilliams and Duke of Connaught as the weakest, what stock is best to use for these, or are two different stocks necessary?

3. Is the Manetti stock the best for all H. P. roses, as our experience has taught us *here*?—we do not want to go by Mr. Bull's experience in England, but by our own, learned from actual observation. What has Mr. Hill to say about the stock *Griener*, *Caroline*, *Banksian*, and the one used by Mr. Dawson so successfully at the Arnold arboretum, "The Majesty" seemingly adored being put on the dog rose. What would he have done if put on the Manetti, *Griener*, or the old *Boursault*? These remarks are supposed to apply to roses to be used *only* for winter flowering.

While the subject is fresh in my mind may I ask at least a *few* of those who write about the rose to give a little consideration and some instruction as to the best methods of producing and supplying plants to those that enjoy a rose garden in June, where either grafted or budded plants have to be supplied. I am not exaggerating when I say that there are at least 500 times as many roses planted out of doors than are planted for winter flowering inside.

That many stocks influence the season is beyond question; we have not far to seek for an illustration taking, as examples, the peach worked on the quince and on the seedling pear, again take apples on crab and on the Donjon or Paradise stocks. There are three things necessary for a good stock. It must be a rapid

grower. It must be rapidly increased at a minimum outcost, and it must make a perfect union with the scion. If the union is perfect it is the scion that controls the stock rather than the stock the scion. Where plants can be as strongly and as quickly grown by cuttings, or where the question of six months' time is no consideration, then worked plants need not be thought about. But where stock is short and time valuable the artificial plan of building on a good foundation is greatly to be desired. Plants to grow vigorously must be equally balanced, or what is better, if the supply is in excess of the demand they make more progress, or in other words, an excess of root action is always better than a shortage.

JOHN THORPE.

ROSES FOR MINNESOTA.—In reply to "A Subscriber" in March 15 issue, I suppose Minnesota is a little colder than Wisconsin, but our mercury always goes as low as forty below zero in winter and I have no trouble in wintering *Hermosa*, *La France* and *Coquette des Alps* out of doors. I can gather a bouquet of roses any day throughout the summer and fall. All the best perpetuals, such as *Anna de Diesbach*, *Baroness*, *Alfred Colomb*, etc., do splendidly here, why not in Minnesota? And why isn't it better to invest in such varieties, in good, big plants, that have to confine one's self to roses that have to be lost every winter if left out? One cannot get along without a few teas, and of these I always buy the largest size advertised; they are more satisfactory.

Fond du Lac, Wis.

D. BARCOCK.

Cutting Roses.

I do not think that the average grower understands the great importance of cutting the buds at the proper time. The size and beauty, and consequently the value of the buds depend very largely upon this being done at the right time.

There is a vast difference in the product of various establishments in this respect, as can be noted at any wholesale store when the daily consignments are received from the various shippers. In some cases the buds are all cut too tight, in others they are all too soft to ship, and in still others each box is a mixture of buds in all stages of development from you will note a box in which the buds are nearly all of uniform size and at the same stage of development, and if you have the liberty of examining the statement of sales made to the grower of the buds last named you will find that his returns are invariably greatly in excess of those made to growers of the other stock.

It is of course some trouble to cut buds as they should be, but I think that if the grower understood thoroughly that the future of the bud is almost entirely lost by this neglect he would pay more attention to it. But the matter plainly thus: In one house there are 200 buds, 50 of which are in proper condition to cut, 100 not quite sufficiently developed, and 50 which have been permitted to open too far. These are all cut at the same time, as the grower "can't spare the time to run through the houses late to cut that 100 and they are pretty near right any way." As 50 of a 100 for *practically* stock with a good demand he will realize about as follows: 50 good buds \$2.50, 100 more or less milky buds \$2.50, 50 open blooms 50 cents, total \$5.50. If each bud was cut at the proper time, with a good demand as before stated, he would receive

payment for at least 190 buds—for the spoilage in handling such buds should be small—which would realize \$9.50. Result, \$1 earned by the man who cut his buds right and \$1 out of pocket for the one who did not. The difference will be still more striking if the demand is slow, for the buds of uniform size will be the first to sell every time.

If you go to a market to buy berries you naturally select those which look fresh and neat, and pass disdainfully by those which are crushed and battered, or are in dirty boxes. The point has been demonstrated time and again in the fruit business that rightly-picked, well-packed fruit will bring frequently 50 per cent more money than will the same fruit where these points are treated as of secondary consideration. That the point applies to flowers as well, I think no person of judgement will deny. Bear in mind that you are losing money in considerable amounts by your neglect.

G.

New Rose Princess Beatrice.

In reply to a query we have received the following in regard to this new tea rose of Bennett's from Mr. Geo. Field, of Washington, who saw the rose while in England last summer.

"Replying to your request I saw the rose 'Princess Beatrice' at Bennett's last summer. It struck me as being a very desirable rose as seen at that time, considering the vigor of growth, size and color of flowers; how it will answer for forcing purposes in this country I have no idea. Mr. Bennett says that it is a first-class rose under glass with him and is a class of heat; strong heat causing it to produce its buds quite freely. Plants as seen by me at Mr. Bennett's in July, both outside and under glass were flowering very freely. My opinion of the 'Princess Beatrice' is that if we can force it here in winter like *Perles*, *Mermes*, etc., it will prove a decided acquisition to our list of choice roses."

Plant Notes.

BY W. F.

JAPANESE SNOWBALL (*Viburnum plicatum*).—About the middle of January we had a thaw, and on the 17th I lifted two large plants—eight feet high above the ground—of this the best of all the snowballs, planted them in tubs—made from kerosene barrels—and set them in a south-facing greenhouse with night temperature averaging 45°-50°. Kept the roots well soaked and watered the buds twice a day. After a few weeks they began to break, they broke very evenly and grew slowly. They are now (March 21) in full bloom and of snowy whiteness; they are just as full of bloom as they would have been out of doors in June, and the blossoms are as pure and white, but the bunches are not so large. In warm sunshine they wilt a little. Such large plants as the above are exceptional, but as I should have to remove them in spring from where they were, I thought I might as well lift them in time to get some early flowers. As they were not hard-frosted the shrubs will be good enough to plant out in May.

CYTHUS (GEMMA) RUCKMOSER. By far the brightest and best yellow flower I have in March. It is easy to grow, comes as a plant, extremely floriferous, very showy, lasts a long time in good bloom, and the cut flowers retain their freshness, beauty and brilliance for several days. I treat it as a cool greenhouse plant; winter temperature 40°-45°. But by starting it early and getting it to complete its growth

early and set its buds, by forcing we can easily get it into bloom at Christmas. Cuttings put in now root very readily. They will be nice plants in 5-inch pots next winter. Next year cut them back after blooming, and pinch the shoots once or twice soon after they begin to grow, but after June let them alone to complete their growth. I grow mine in pots plunged out of doors in summer. But they may be planted out with good success. We may keep the same plants for twenty years if we want to, but I don't; 2-year



ODONTOTOXUM IN PULCHERRIMUM.
(Expensev.)

old plants give me the finest branches of bloom. It is also known as *C. Canariensis* var. *racemosus*.

BALFOUR'S CLERODENDRON.—Planted out in a warm greenhouse—winter-night temperature about 65°—run up a pillar and then along a wire under the ridge-plate we have an old specimen. I used to cut it hard back in August and keep it dry at the root for flowers at Christmas. But last year I did not cut it back till the end of September. It did not show any signs of breaking till January, then it broke slowly, and not till near the end of February did it break well. It is now (March 21) and has been for the past two weeks in full bloom, and fuller and finer than I ever before saw it. What a pity it is that it wilts so soon! Grown in pots and trained around cylinder-shaped trellises it forms a magnificent specimen, and can be treated so as to be had in bloom at most any time. In this way it is highly serviceable for brief periods in house decorations.

THE WHITE PASSION FLOWER.—Constance Elliott behaves very graciously with me; year old plants bloom unstintedly.

CINERARIAS.—Why have ladies, as a rule, such a prejudice against these brilliant flowers? True, as cut flowers cinerarias are almost useless. But I grow some 250 plants a year for their cheerful effect in the greenhouse. I sow in June and again in July; these sowings give me flowers from December till May. I grow and till October or November I sum my cinerarias, caleceolarias and Chinese primroses in cold frames, and close to the glass, shaded from sunshine, but ventilated at all times and uncovered in dull weather and fine nights. A heavy mulching of tobacco stems is always kept under

them. While cinerarias very much dislike a high temperature or dry atmosphere, they will not bear a breath of frost with impunity. They delight in rich, porous soil, and big pots make big plants, but in 6 and 7 inch pots I get my most serviceable stock. But double-flowered cinerarias last fairly well as cut flowers, and they are better liked than the singles. But while 30 per cent. may come semi-double, only less than 10 per cent. comes full double (this is my repeated experience), and the colors are mostly bluish purple. A full double flower is handsome, but a semi-double one is a very trashy affair and not worth growing. Until the full-double nature becomes more fixed I don't think it will pay florists to trouble much with them.

Orchids of the Future.

In its report of the recent New York orchid show the morning *Journal* of that city being apparently much impressed by the odd forms of some of the flowers shown, moralizes on the possibilities of the future, and hints that the hybridizer may in time produce forms similar to those illustrated on this page. The reporter evidently carried his imagination right with him all the time; he has also apparently studied nomenclature to some effect as is evidenced by the names attached to his creations.

Miscellaneous Notes.

LEPTOSYNE MARITIMA.—This is one of the most lasting flowers to wear in a hot room it has been my lot to notice. The blossoms are as bright at the end of a week as when first cut. J. T.

AT A RECENT funeral in Baltimore, a cross of water lilies surmounted by a dove was used. A wreath of red and white roses was placed on the head of the deceased in the casket, and on his breast was a sickle of the same flowers.

WILD FLOWERS IN FLORIDA.—A botanist who took a morning drive in the vicinity of Enterprise last month, counted no less than eighty-three different wild flowers in bloom. He kept a memorandum of them and the list with both botanical and common name was printed in a local paper.

SHIPPING LABEL FOR PLANTS.—I would suggest the use of a universal green label for shipping plants. Something similar to the red one now used on cut-flower shipments but printed in green with the words, "Perishable Plants," or something of that nature.

W. R. SHELMIER.

AMPELOPSIS VEITCHII.—In reply to M. F. S.: More than likely both are true. A Veitchii in its young state varies greatly both in color of foliage and habit of growth, often not showing the true character until fifteen to twenty-four inches long. A Koyli is more red than Veitchii, stronger, bolder and a coarser grower, and some say better than Veitchii, but I cannot see it. R. J. II.

LIME WATER.—After the dark days of winter the soil of all plants, and especially hard wooded ones, is very liable to become sour and full of worms. Lime water is excellent to sweeten the soil and kill the worms. Slack one-fourth peck of lime in twenty gallons of water, it will be ready to use as soon as it becomes clear, which will be in about ten hours. Use only the clear liquid, not disturbing the lime which settles at the bottom.

R. J. II.

STOKE HOLES.—We have been troubled all winter with a wet stoke-hole or boiler-pit; can some one suggest a way to keep out the water? Will brick and cement do it, or must we resort to the down-hill plan of piping? The subsoil is a heavy clay with no drainage and the water comes in about three feet from the surface. If some one who has had success in a case of this kind will please state their method in the *FLORIST* they will oblige greatly. G. & P.

SHADING.—As the season for the use of shading is at hand I would suggest the following, which I obtained from a neighboring florist, Mr. Chas. Tyrrell: Mix one part water lime with two parts whiting in a pail to the required consistency and apply with a brush. When you wish to remove it from the glass, with a dry brush you can readily wipe or brush it off. Rain will not affect it, however, and it has proved with me the best and most convenient shading I have ever used. COREY GIDDINGS.

THE BENNETT.—Let this rose have a rest for a little while, and don't cry down a good rose because you have not the secret of growing it. One man takes up and makes a specialty of growing one kind of plants and succeeds, another



TRUE PARASITE.
(True Parasite.)

makes a failure. So it is with the famous Bennett; my humble opinion of it is that it is without doubt the best crimson winter-blooming rose in cultivation, profitable both for the grower and retail dealer. The Bennett, as an out-door summer-bloomer, is worthless. R. J. H.

GLAZING.—In building a new house last fall instead of lapping the glass we butted it end to end after dipping the edges in a mixture of oil, whiting and lead, made thick enough to adhere to the glass. This made a perfectly tight joint, closing any cracks and cementing the edges together. We consider it a great improvement over the old style; we have lost no glass from breakage caused by water freezing between the laps, and shall glaze in the same manner two more new houses we contemplate building the coming season. J. W. DUBLEY & SON.

INSECT DESTROYERS.—In a previous number of the *FLORIST*, a subscriber asks for a remedy for green fly, other than tobacco-water or fumigating. Take

tobacco stems such as are used for fumigating, distribute them under the shelves and stages, or in out-of-the-way places. Renew them occasionally and there will be no need of fumigating or using tobacco water. The idea is to get all the fumes of the tobacco possible. Green fly cannot exist in such an atmosphere. Only man and goats can stand it. It will be found an excellent remedy; you will have no scorched foliage from fumigating pots blazing, and you will be free from tobacco water. R. J. D.

NATURAL GAS IN GARDENING.—A gardener near Pittsburgh surrounded his asparagus beds with jets of natural gas and had asparagus in the market six weeks ago, and a gentleman at the east end in the city has had his small garden underlain with a network of pipes with gas jets coming just above the surface about two feet apart. He hopes to avert all danger of frosts and winds by lighting the jets which are supplied with the natural gas. A skeptical gardener is waiting to see what will happen when leaks occur in the pipes and permeate the ground with the gas. In the mean time all sorts of wild prognostications are made as to the value of the principle in gardening work. F.

EXPRESS RATES.—In addition to the point raised by Mr. E. G. Hill in regard to charges on shipments of plants, I would suggest that cut flowers be included in the application for lower rates. I am in daily receipt of cut flowers by express, and the variable and frequently exorbitant rates are a heavy tax. All that is needed is for the trade to make a united demand, as is done by other trade organizations who ship largely, and they would not have great difficulty in securing their point. If the national society appoints a committee, as suggested, it will be no more than right to include cut flowers as well as plants in the application. St. Louis. F. C. W.

PROPAGATING BEDS.—On page 274 E. L. speaks of a way of making up a cutting bench so that the "fungus of the cutting bench" will be washed over the side from watering, but how it is going to accomplish the object without washing out the sand and cuttings with it I fail to see. I differ with E. L. as to every propagator being troubled with the fungus—during my fifteen years' experience I have never lost a cutting from it, and I know a good many veterans in the business who have also been exempt from its ravages. Though I have seen many thousand cuttings lost from this fungus, it was never in the result of negligence or ignorance. Most frequently the trouble is caused by too high or close a temperature and often from using the same sand too long. To those who have this fungus in their beds I would recommend that instead of trying to wash it off of the bench to procure fresh sand; keep the air in the house fresh and pure and maintain not too high a temperature. Always use clean sharp sand that will allow free passage of surplus water and admit air—remember fresh air is death to this class of fungoid growth. Do not allow the bottom of the bench to become air and water tight. Arg. S. S.

EASTER FLORAL WORK.—We should be pleased to receive from any of our readers photographs of floral designs made by them for Easter decoration. The more suitable designs will be engraved and published in subsequent issues.

Trade Notes.

BALTIMORE.—The prominent gardeners, florists and seedsmen of the city, to the number of forty, met March 24 and organized a florists' club, under the name of the "Gardeners' Association," with Mr. R. J. Halliday, President; Mr. Wm. Frazer, Vice-President; Mr. Wm. B. Sands, of "American Farmer," Treasurer, and Mr. Wm. McRoberts, of Brackenridge & Co., Secretary. We hope the event marks the beginning of an era of prosperous good-fellowship among us, and trust the subsequent proceedings may be of sufficient importance to merit occasional mention in your columns. MACK.

MEADVILLE, PA.—Steinfeld, Ewig & Co. have started into the florists' business with a house 72x18.

KANSAS CITY.—Geo. L. Kroh, of Wyandotte, has sold his place, which is to be allotted for residences, and is selling out his stock. C. Galland has also sold his place for the same purpose; he has sold all his stock and torn down his greenhouses. Lemmon, of Seventh and Orville streets, has bought the glass, with which he intends to build an addition to his place. C.

MILWAUKEE.—The J. T. Bartlett Plant and Seed Co. have opened at 208 Grand avenue with greenhouses at Oconomowoc.

DANVILLE, ILL.—Mr. A. Giddings, a florist of this city, was married at Danville, Ind., March 23. A very large and handsomely made floral ship was presented to the couple by the florists of Danville, Ind.

CLEVELAND.—At a largely attended meeting, March 28, the organization of the "Florists and Gardeners' Association in Cleveland" was perfected. A constitution and by-laws were adopted and the following officers elected: President, A. C. Kendel; first vice-president, J. M. Gasser; second vice-president, Mrs. E. G. Campbell; treasurer, Geo. Probeck; corresponding secretary, E. Paddock; recording secretary, Wm. Parrott; board of managers, E. O. Schwagerl, Adam Graham and Arthur Jaynes. A committee was appointed to secure permanent quarters for the association.

ST. PAUL.—The Minnesota state horticultural society has secured the passage of a law designed to protect purchasers in this state from unscrupulous vendors of trees and plants, who sell them untrue to name. A bond of \$2,000 is required from growers and dealers, in addition to which he must furnish a certificate to the secretary of state showing the kind of trees, etc., it is proposed to deal in.

SAN FRANCISCO.—The state board of horticulture has issued a call for a convention of fruit growers to assemble at Riverside, Cal., April 11, to continue one week. A grand exhibit of fruit and flowers will be made by the southern counties. A fruit and flower fair will be held in the park in May. All the prominent florists and nurserymen have promised exhibits, and many will be sent from local private conservatories. For some time past numerous thefts of plants and floral designs have been made from Mountain View cemetery. A watch was set and the thief was finally captured in the act of digging up a rose bush from one of the graves. He was released after paying \$250 to make good the damage he had done. He is said to be a florist of this city who took this method of increasing his stock.

LINDENIA, published at Ghent, Belgium, is devoted entirely to orchids, each number containing four large colored plates of these plants. A copy sent us contains colored plates of *Lipidendrum atropurpureum* var. *Randi*, *Cypripedium microchilum* Rehb. f., *Stanhopea tigrina* Batem and *Phalanopsis Sumatrana* Korthals.

ILLUSTRATION HORTICOLE.—This handsome publication has doubled the size of its pages and has increased the size of its colored plates in each number to correspond.

LE JARDIN.—The first number of a new French horticultural journal comes to us under the above title. It is a 16-page paper, published semi-monthly under the management of the well-known M. Godefroy-Leheuf, at Argenteuil, near Paris.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (ten words) each insertion. Cash must accompany order.

SITUATION WANTED.—As gardener, by a practical, first-class man in every particular, private place preferred. Address: L. BUCKENROTH, 1007 Chapin St., South Bend, Ind.

SITUATION WANTED.—As gardener, practical and first-class rose grower by reputation; married, one child, no other disqualifications; good references, private or commercial. Address: E. W., Box 38, Orange, N. J.

A MAN who has been formerly foreman and rose grower with T. J. Shugart, of Madison, N. J., is open to an engagement where choice roses and other flowers are grown for commercial purposes or where A. J. flows are grown for private use. He has landscape gardening in the true sense of the word as well as a knowledge of the business. O. K., care A. MAYNARD, High Bridge, N. Y. City.

WANTED.—A competent and experienced man, to take charge of a factory to can fruits, vegetables, etc., address with reference, L. C. WOOD & BROS., Fishkill, N. Y.

FOR SALE.—Fuchsia, Sturt King, \$10.00 per dozen; \$5.00 per 100; by mail \$1.00 per dozen; \$8.00 per 100. Carnation, Queen of the West, \$5.00 per dozen and other stock. ELLIS BROS., Keene, N. H.

FOR SALE.—Five greenhouses with 2½ acres of land; good improvements; business established in 1870; just the place for a married man and a family. Address: Box 2, Cochran, Ind.

FOR SALE.—Clematis, crisp, fine strong blooming roots, \$5.00 per 100; fine white water lilies, \$5.00 per 100; a few thousand. Pearl and Excelsior Seed Lilies, 25¢ each. \$5.00 per 100.

JAMES M. LAMB, Sunny-side Floral Nursery, Rochester, N. Y.

FOR SALE.—A retail floral store in the centre of Chicago, on a main thoroughfare, is now doing a good business which can be largely increased by proper management; owner is unable to attend to it; \$200 cash will buy it. Address: M. 4.

AMERICAN FLORIST, CHICAGO.

FOR SALE.—Two green houses 16x32 and 30x32, 100 plants, house and new heated by steam; good location for cut flowers and plants, heavy pressure of city water; low lease; \$100.00. J. J. F. 18, 342 N. Broad St., Philadelphia.

FOR SALE.—Ornamental plants for any value. A new and valuable patent on Seed Drill; sows seed, fills soil with manure, and may be used in garden, also distributor of fertilizer. Highest testimonials and references. Owner has no money to push it; \$200 in cash or trade. Address: SLEED DRILL, care Am. Florist, Chicago.

FOR SALE.—Greenhouses in a thriving city of 25,000 inhabitants, within six hours' shipping of Chicago and New York. One of the best stock retail trade; four greenhouses well stocked; heating apparatus; hot and cold water; good location; lot of land; a dwelling house and stable. For particulars, Address: H. care Am. Florist, Chicago.

FOR SALE.—Greenhouses and three or six acres of land, all in good condition. The greenhouses with good improvement; business established since 1870; house stocked with roses, shrubs and plants and business continues as usual; will sell on easy terms, as I wish to retire from business. Address: J. E. JONES, 1000 N. 3rd St., Baltimore, Md.

FOR SALE.—Greenhouse, 50x22 and propagating house 50x12, both glazed with double thick glass, one acre of land, with trees, shrubs, and flower entrance to cemetery, and I have a fine trade from it for cut flowers and plants. Street cars pass all round the place every 10 minutes. The greenhouses are heated by 2,500 feet of 3-inch wrought iron pipe with one inch of hot water in each foot. House has been built only two years and everything is in good condition. Will sell for \$10,000 or will sell on easy terms, as I wish to retire from business. Address, ALBERT BURT, No. 2000 Oakwood Ave., Syracuse, N. Y.

New Roses of 1886.

AMERICAN BEAUTY,
W. F. BENNETT,

THE BRIDE,

Also new Roses of the present year,

PAPA GONTIER,

COMTESSE DE FRIGNEUSE,

MARQUIS DE VIVENS,

and all other choice and standard varieties in very
fine plants at lowest rates for first-class stock.
Special quotations for large quantities on applica-
tion to

J. N. MAY,

Rose Grower,

Union County,

SUMMIT, N. J.

Novelties in Roses.

NOVELTIES IN GERANIUMS.

The new French Geraniums for 1886 will be ready
for shipment September 15. Twelve of the very
finest out of this year's new ones:Glory of France, Roman, Sergeant Bobillet,
Arc-en-Ciel, etc.The New Roses embrace some very promising
varieties.Comtesse de Frigneuse, Mad. David, Camille
Roux, Claire Cochet, and others.Send for descriptive list and wholesale price
list of other choice stock.

HILL & CO.,

RICHMOND, IND.

THE GRAND NEW TEA ROSE

"Comtesse de Frigneuse"

This Rose is probably the best, ever raised for
florist's work; the bud is of "Niphotos" or "Ben-
nett" shape, color of "M. Neil," and rather
larger than a duck's egg; a perpetual bloomer.
I am now booking orders for delivery from
March to May, of this rose, as well as of the grand
new Hybrid,

"CLARA COCHET."

All the new Roses of Autumn, 1886, will be ready
for delivery in March.My Catalogue of these, as well as my general
Catalogue, free on application.
A splendid lot of "Perle des Jardins," "Niphotos,"
"M. Neil" in pots, always on hand.Any quantity of ground plants of "Jacqueline,"
"Mme. Gabriel Luizet," "Paul Neron,"
"Magna Charta" and similar kinds.JAMES L. BOYSON,
CAEN (CALVADOS) FRANCE.

SUPERB

New Roses
OF 1887.

ALEX. DICKSON & SONS

Beg to announce their three Pedigree Seedling
Roses.H. P. Earl of Dufferin, undoubtedly the finest
dark rose in cultivation, seven first-class
certificates, the greatest number ever awarded to
any one new rose. Chromo-litho. plate of this
superb Rose, mailed free on application.
H. P. Lady Helen Stewart, crimson-seedling,
a thoroughly distinct color. For autumn
bloom this variety is unsurpassed.TEA. Miss Ethel Brownlow, a truly grand
and free flowering Tea Rose. This variety
is possessed of greater lasting properties than any
variety with which we are acquainted. Awarded
six first-class certificates.PRICE 12c (ten shillings and six pence). Set
of three varieties 27 (twenty-seven shillings)
each. Descriptive Lists on application.A great demand for these sterling Roses being
anticipated, it is particularly requested that all who
require a supply will order as early as possible, to
prevent disappointment.

The Royal Nurseries,

NEWTOWNARDS, Co. Down, Ireland.

1887.

ROSES FOR FLORISTS.

1887.

We offer the largest and most complete stock of Roses in this country. Straight
2½-in. plants. Propagated from thoroughly matured field-grown plants, and grown
in ordinary soil without manure or any other stimulating material. They resist
disease, start quickly, grow rapidly, and give best results.ALL THE LEADING VARIETIES in large supply at very reasonable prices—
Am. Beauty, Papa Gontier, W. F. Bennett, The Bride, Her Majesty, La France, Gent. Jacq., Perle des
Jardins, Niphotos, C. Mermet, M. Robert, Pierre Guillot, Sou d'un Amour, etc.THE NEW ROSES OF 1887—Comtesse de Frigneuse (Golden Pearl), Son, de Victor
Hug, Grande de France, Camille Roux, Marguerite de Roum, Flaven Boudillon, Evadelphe, Comtesse
Houise de Chausson, Mad. David, Claudine Lévy, Edmund de Rivarol, Suzanne Rivarol, Sonnet,
Admiral Courbet, Comtesse George de Roquette Duboué. Set of 14 for \$5, and very reasonable per dozen
and hundred.HYDRANGEA GRANDIFLORA—A Specialty—Immense Stock, strong open ground
plants, all sizes, very fine. Also Japan Judas, New White Weyga Canada, Weyga Hibernica Nova,
Japan Snow Ball, Viburnum plicatum, Rosa Rugosa, and a full line of all the best Hardy Shrubbery
and Climbing Vines, including Ampelopsis Viticella (Boston Ivy), Aconia Quinata, Sweet-Scented Honey-
suckles in variety, etc., etc.Special Wholesale Price List free on application, to Florists, Market Gardeners and Dealers only.
List priced, special selections made, correspondence solicited. Address,

THE DINGEE & CONARD CO.,

ROSE GROWERS,

WEST GROVE, CHESTER CO., PA.

ROSE

PAPA GONTIER.

Plants of this beautiful Rose can now be had from the undersigned at the
following prices: In 2½-inch Pots, Per 100, \$25; Per 500, \$100; Per 1,000, \$180.

CASH WITH ORDER FROM UNKNOWN CORRESPONDENTS.

JOHN HENDERSON,

MENTION THE AM. FLORIST.

FLUSHING, N. Y.

ROSES, PLANTS, ETC.,

Ready for planting out.

100,000 Tea and Hybrid Roses

Grown in 2½-in. pots. Send in your list and we will quote lowest
prices. Wholesale Price List on application. Address,

NANZ & NEUNER,

LOUISVILLE, KY.

SPECIAL TO THE TRADE

ROSES:

Alme Sisley, Hermosa, Ophelia, Gertrud Desbouds,
Mad. Van Houtte, Mad. Briss, Count de La Barthe,
Mad. Jos. Schwartz, Mad. Lambard, Mme. Annette
Seant Cog. de Blanches, Adam, Duchess of Edin-
burgh, Niphotos, \$2.00 per 100, \$2.50 per 1000. Cuth.
Mermet, \$2.00 per 100. Most of these roses are in
2½-inch pots. CARNATIONS. In flower. King of Crim-
sons Garfield, \$2.00 per 100. Sunrise, \$2.00 per 100.
COLIERS, Centaurea Gynocarpa, Sealies white
Violets, Heliotropes, Chaeftan and Mad. Blouay;
Geraniums, unnamed \$2.00 per 100. Saxifrag in any
quantity \$1.50 per 100, \$2.00 per 1000. Samples by
mail for 25 cents.

GEO. THOMPSON & SONS,

Wholesale Florists, Louisville, Ky.

261 W. Jefferson St.,

Louisville, Ky.

23,000 ROSES

FOR FLORISTS.

2½-IN. POT, HEALTHY PLANTS. PER 100
The Bride.....\$8.00
Mad. Watteville, very fine.....4.00
Niphotos.....4.00
Perle des Jardins, very fine.....4.00
Mermets.....4.00
C. Cook.....4.00
Sour. d'un Amour.....4.00
Hermosa.....4.00
Malmison, Also Etrole de Lyon, Adam, Tea Queen
scarlet and a general stock of bedding plants.

ED. MORAT,

719 4th Avenue, - - - Louisville, KY.

Mention American Florist.

ROSES

Mermet, Niphotos, Bon Silence, Safrano and Isabella
Spiral, 100 on 2½-inch pots, \$1.00 per 100.

CARNATIONS

Peerless, Huz's White, DeGraw Snow Flake, Al-
bation and Double from 2½-inch pots, \$1.00 per 100.
Rooted Cuttings of the above named varieties \$2.00
per 100.

JAMES HUBBS, Florist,

BRIDGEPORT, CONN.

THE NEW ROSES.

American Beauty, Bride, Her Majesty,

W. F. Bennett, Papa Gontier,

Also good plants of the best leading varieties of
Teas, H. Teas, H. Perpetuals and a general collec-
tion of greenhouse and bedding plants at a very low
price. Send for prices.

JACOB SCHULZ,

1325 E. BROADWAY, LOUISVILLE, KY.

10,000 ROSES.

20,000 BEDDING PLANTS.

Including the choicest varieties, and grown from
good healthy stock, in 2½, 3 and 4½-in. pots, and will
be sold at bottom prices. Also 260 Prairie Queen
roses, in 4 and 6-in. pots, and a greenhouse furnaces,
with entire lots and shoots complete, that I will dis-
pose of cheap. No catalogue. For particulars
address,

W. T. HILLBORN, Florist,

NEWTOWNARDS, Bucks Co., PA.

The Out-Flower Trade.

BOSTON, April 11.—The Easter trade was very satisfactory, the amount of business being probably the largest ever done here at this season. Several days of fine weather brought out both an abundance of stock and customers. Prices received were moderate and advanced on but few varieties. There was a scarcity of smilax, hardy ferns and moss. An unusual demand for candidums, lily of the valley, narcissus and roses was noted, but rather slow for violets. The importations of cut lilies from Bermuda were not a success.

W. J. S.

COST OF FLOWERS.—We regret to see these stories of extravagant prices for flowers floating around in the daily papers. In the average interview of a florist by a reporter the florist says, "Oh, yes, flowers bring very high prices now; some roses we get as high as \$10 to \$15 a dozen for, and some rare ones as high as \$2 each." This, without any qualifying remark to the effect that commoner varieties may be purchased for much less. It is unwise and directly against the best interests of the trade to permit the impression to be gained that all flowers are expensive and can be indulged in only by those of wealth. Of course the average reporter may not always report correctly, but the fault more frequently lies with the florist in his desire to "load" the reporter. Such work does injury to the entire trade and benefits no one.

The Odor of Flowers.

The profuse use of flowers at fashionable entertainments is not without serious objection. At a recent magnificent party given in this city three ladies fainted, owing to the odor of the blossoms, which was strongly brought out by the heat of the rooms. I am also told that in churches where flowers are lavishly used many ladies find it impossible to remain, and all of us know the effect from the same cause at funerals.—*Philadelphia Star.*

What a tough and hardly lot the florists must be to stand these powerful odors so much of the time. Still if the "odor of the blossoms" was brought out sufficiently "by the heat of the rooms" we have no doubt even they would succumb. They might also be overcome by the "odor of the blossoms" at the funeral of some relative or friend from whom the parting was a severe trial. But the "blossoms" would undoubtedly be the cause.

ST. PAUL.—After an unusually dull Lenten season the florists had all they could do to fill their orders for Easter, as the recent cold and dark weather shortened the supply of flowers to some extent. *Lilium cariduum* were very scarce, very few were to be had. The Easter demand was almost double that of last year.

ACG. S. S.

RACINE, WIS.—At the recent funeral of a member of the press association one of the floral tributes was a desk with a background of green, upon which an open paper was spread with "the press" in purple for the headline upon a ground of white carnations. The column rules were of violets, the intervening spaces, representing the columns of the paper, being of white carnations. On the corner of the desk was an inkstand of white carnations, in which stood a floral pen of carnations and for-get-me-nots. The corners of the desk were relieved with clusters of callas, hyacinths and roses, the sides of the desk being a mass of smilax. As a companion piece was a handsome gilt chair of full size, which consisted of a skillful blending of smilax,

carnations, hyacinths and roses which covered the back and rounds of the chair; placed diagonally across the seat was a bed of white roses with the words in purple, "Vacant." On either side of this was a mass of callas, roses, hyacinths and other choice flowers.

PHILADELPHIA.—The florists' club had their annual banquet the evening of March 30. The room was tastefully decorated with palms and azaules; light strands of smilax entwined the chandeliers; an arch of roses stood in the centre of one of the long tables, a butterfly of pansies adorned a corner, a large plateau of roses stood in front of the president, and smaller plateaus were placed at intervals along the tables, while roses and pansies were distributed as button-hole bouquets. Nearly one hundred members sat down at the entertainment, which was presided over by Robert Craig, the president of the club. The menu was long, and speechmaking did not begin until after 10 o'clock, nor was it very verbose then. Robert Kilt was toastmaster. The speeches were short, witty and pointed, and were interspersed with many songs, and they joined in the choruses in a way that made the windows rattle. The fun was kept up until a late hour, and the entertainment was unanimously voted a success. The Pennsylvania horticultural society expects to add a reading room to its library, and otherwise enlarge its efficiency. This society is the oldest existing horticultural association in the United States, having been founded in 1827 and incorporated in 1831. It has held fifty-seven annual exhibitions, as well as a large number of monthly flower shows, its premiums amounting since its organization to \$2,000,000. The library of the society embraces works on horticulture in all its branches, botany and kindred topics.

Chicago.

The weather has turned remarkably fine and the plant peddlers are out in force.

There is a decided scarcity of *Candidum* lilies for Easter, and what are to be had are of rather poor quality.

Chas. Krueger will remove from his present location to 61 East Washington street, May 1.

Grossmann & Bauske are building four rose houses, 10x30 each, and will start into business as soon as the houses are completed at Bowmanville. They will grow out flowers for the Chicago market.

A majority of the florists report that the entire volume of trade at Easter was greatly in excess of that of any previous year, but that the call is more largely for cut flowers than for set pieces. The size of orders is in many cases smaller than formerly, but a large increase in the number of buyers swelled the total considerably beyond the usual Easter sales.

A ladder of plants was used at one church Easter Sunday. The potted plants were set in a frame work to make the ladder, and at the close the plants were distributed among the children present.

At the last meeting of the florist club ten new members were elected and several amendments to the constitution and by-laws were adopted. The club proposes to give an entertainment at the club rooms at an early date, to which the members are to bring their wives and sweethearts and have a social evening together. The club room is now in charge of a custodian, who keeps the room open from 9 a.m. to 8 p.m. every day for the accommodation of members. The duties of the

secretary having increased to such an extent as to prove burdensome, the club at its last meeting elected Mr. P. J. Hauswirth as financial secretary, and that gentleman will hereafter struggle with the books of account. Mr. C. B. Whinnall, a Milwaukee member, attended a recent meeting of the club.

Thuse of palms in Easter church decorations is on the increase. Windows banked with flowers and draped with smilax was a feature at one church.

A large tray of white tulips in bloom, placed on end in front of a pulpit formed one of the most effective Easter "designs" at Christ church.

Cincinnati.

The Easter trade was very heavy. Every florist in town had his hands full. Violets, tulips and lilies of the valley have the call among popular flowers these Lenten days.

The floral decorations at a recent dinner were superb. The linen at the corners of the table was draped and held by clusters of violets. In the center, upon a mirror, rested a ship. The sails were made of white hyacinths, the deck and bows of ferns and violets, and her cargo of rosebuds were corsage-bouquets tied with blue, pink and white streamers. The "lake" was bordered with moss.

One of Cincinnati's Lenten brides was married under a great floral wishbone at least three feet in length. The design was part of a lovely canopy, made by Sunderbruch, so large that it filled half the room. Over a hundred strands of smilax, dotted with roses, were draped artistically from the center chandelier to the lace curtains in the rear of the apartment, upon which the monograms of bride and groom found place.

A unique offering was made to a couple who celebrated the twentieth anniversary of their wedding recently. A pair of wooden shoes, filled with flowers, was presented to both husband and wife, as well as to each of the children.

Out in the west end a bride and groom recently knelt upon a floral piece made by Sunderbruch. The cushioned top was covered with violets, and a Bride rose and tufts of lilies of the valley were placed at each corner.

At Jewish weddings, now, it is the fashion to decorate the small stands upon which the "wine cups of joy and sorrow" rest, with roses and other flowers.

Fashion is responsible for many queer freaks. Not long ago, at a suburban wedding, the groom was a manufacturer of "sweet pads" for horses. One of his patent collars, on which he had made a fortune, was traced in roses, abutilons, lilies of the valley and other fragrant blossoms, and given prominence in the reception room. What next?

Ten days of cold, dismal weather have done much to make the local florist feel blue.

A prominent railroad's death gave every florist in town lots to do. An extra baggage car completely filled with flowers was added to the funeral train. Gardiner made a handsome design for the fraternity of the rail—a passenger car with its trucks thrown off the track.

A funeral design made by Huntsman was an array of carnations, lilies of the valley and roses. Upon it lay a banner of yellow with handle of pink carnations. Mr. Huntsman has a small orchid show that attracts considerable attention.

The Floral Exchange makes a very fine display of Memes.

REN MULFORD, JR.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.25.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.00; Column \$14.00.

Cash with Order.

No Special Position Guaranteed.

Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.

No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.Advertisements for May 1st issue must
REACH US by noon, April 24. Address.

THE AMERICAN FLORIST CO., Chicago.

DR. ALBERT KELLOGG, an enthusiastic
botanist, and one of the charter members
of the California academy of sciences, is
lying at the point of death in Alameda,
Cal.L'HORTICULTURE INTERNATIONALE.
This company has succeeded the Compa-
gnie Continentale d'Horticulture at
Ghent, Belgium. It is the intention of
the new company to undertake a thorough
exploration of all parts of the world
with a view of discovering new kinds of
orchids and to collect valuable known
kinds in sufficient quantity to bring them
within the reach of people of moderate
means.

Catalogues Received.

W. T. Bell, Franklin, Pa., plants.
Young & Elliott, New York, orchids.
Jno. G. Heintz, Terre Haute, Ind., plants.
F. W. Harold, Salisbury, Md., plants.
Bell Conservatory Co., Sacramento, Cal.,
plants. Buffalo Steam Heating Co., Bu-
falo, N. Y. Steam heating boilers.
Gebrüder Schultheis, Steinfurth, Ger-
many, new roses. Ed. Austin, Effing-
ham, Ill., plants. Wm. Caulwell, Wan-
tage, England, plants. Harry Chappel,
Williamsport, Pa., book of flowers. J.
A. Balmer, Vincennes, Ind., plants.
Wm. Ch. H. Machen, Toledo, O., Dutch
bulbs. Luther Burbank, Santa Rosa,
Cal., trees and plants. V. Lemonie,
Nancy, France, plants. Max. Degen-
ger, Kostritz, Germany, dahlias. Wm.
A. Bours, Jacksonville, Fla., seeds. Jno.
M. Simmons, Vestal, N. Y., seeds and
plants. E. Sheppard, & Sons, Lowell,
Mass., plants and shrubs.

Substitution.

Out in California they seek redress by
course of law when victimized by those
who indulge in "mistakes" of this kind, as
is shown by the following clipped from the
San Francisco Bulletin of March 7:A suit has been commenced and is now pend-
ing in Santa Clara county by Joseph Bassford, a
prominent fruit grower of Vacaville, Solano
county against a nurseryman of San Jose, to re-
cover damages caused by the delivery to Mr.
Bassford of trees which, it is claimed, were not
as represented by the defendant. The trees
ordered were of the earliest and most valuable
kind of fruit for shipping. Fruit from trees of
the kind ordered has been marketed on the 1st
of April, and sold at as high as \$2.25 per pound in
San Francisco. The trees sent Mr. Bassford
were planted and carefully cultivated for six
years, when it was discovered that instead of the
fine, plump, delicious cherry that was expected,
they produced a small inferior fruit, ripening
not until May, and in fact quite unfit for market.
It is too often the case that nurserymen are care-
less in filling orders. Mr. Bassford's is only one
of hundreds of cases of similar kind. In most
articles of merchandise the merchant can look
at the article required and take it on its merits
as seen, but in a case like the one alluded to the
merchandise is often entirely at variance with the
order. It is a very serious loss for an orchardist to
plant, prune and cultivate an orchard for six
years and then find he has an unmarketable
article for his pains—and all because the man
who sold him the trees was, to speak mildly,
grossly careless. Up to this point no one has
had sufficient determination to demand redress
for such carelessness. It is hoped that full jus-
tice may be done in the case of Bassford.

Wholesale Markets.

Cut Flowers.

	Boston, April 11.
Roses, Teas.	3.00
" Perles, Niphetos.	3.00
" Maras, La France.	10.00
" Jacques.	20.00
Carnations.	1.50
Lily valley, tulips.	4.00
Cauldham.	5.00
Spiraea, Stocks.	3.00

	Chicago, April 12.
Roses, Perles, Niphetos.	3.00
" Mermetts.	3.00
" La France.	10.00
" Maras.	20.00
" Bon Silences.	1.00
" Jacques.	1.50
Carnations.	1.50
Yuccas.	7.00
Callas.	12.00
Strohas.	3.00
Heliotrope.	1.00
Tulips.	4.00
Romans, L. valley.	4.00
Joujumps.	4.00
Cauldham.	10.00
Asparagus tenuissimus.	40.00

Our New York and Philadelphia cut-
flower prices have not been received up
to date of putting last form to press,
April 13.

Wm. J. Stewart,

WHOLESALE DEALER IN

CUT FLOWERS,

67 Bromfield St., BOSTON.

Consignments solicited.

W. S. ALLEN,

WHOLESALE FLORIST

940 Broadway, N. Y.

Price Lists mailed to applicants.

JOHN KEYES,

WHOLESALE - FLORIST

No. 11 West 27th Street,

Near Broadway, NEW YORK.

Consignee of the principal growers about New York.
Lilies of the Valley and Lilies at all times.

Forest Glen Floral Co.

Cut Flowers at Wholesale.

EXTENSIVE ROSE GROWERS.

191 Wabash Ave., CHICAGO.

Telegraphic orders will receive prompt attention
at all hours, day and night.

Greenhouses at Forest Glen, Cook County, Ill.

JOHN J. PERKINS,

Wholesale and Commission

FLORIST

69 West 28th Street,

Telephone No. 672, 39th St., New York

Branch, 38 S. 16th St., Phila., Pa.

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President Craig says of our Aster seed: "All the varieties of Truffant's Asters we had of you were very fine, particularly the 'CRIMSON BALL,' which is the richest crimson and the most desirable we have seen."

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FOR SALE The so-called, double Peltandra Queen Victoria, having a large crimped or fluted flower, of a soft beautiful color. An excellent market plant, \$1.00, \$1.50 and \$2.00 per dozen. Fine Verbenas, Chrysanthemums, etc. **W. T. BELL, Franklin, Pa.**

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	Doz.	100.
2 to 3 feet.....	\$3.00	\$30.00
Clematis, 12 fine varieties, mounted.....	2.00	
Thibroses, Pearl and common dbl.....	1.00	5.00
Peonies in good assortment.....	1.50	10.00
Monthly Roses, 4 in. pots, strong.....	1.50	10.00
Moss Roses, strong, 2 1/2 in. plants.....	1.50	10.00
Climbing Roses, strong, 2 1/2 in. variety.....	1.00	5.00
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NAMED VARIETIES, well assorted, in 15 or 20 distinct sorts, selected from a grand collection of over 200 varieties, \$1.00 per 100, \$2.00 per 100.

MIXED GLADIOLUS, all colors, \$2.00 per 100, \$1.50 per 100. Mixed seedlings and delicate light shades, a very fine strain, \$1.00 per 100, \$2.00 per 100. Send for descriptive list.

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RHODODENDRONS

Of American-grown hardy sorts.

Red Flowering Dogwood

And other Rare Plants.

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INDESTRUCTABLE BENCHES

Can be made by using

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AND EVERY WAY BETTER.

They will last a lifetime and you will not be troubled with fungus from rotting wood. They transmit bottom heat better than wood.

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What is Hot Water under Pressure?

It is a scientific fact that a body of water in a confined space can be heated or super-heated to a temperature much higher than 212°. There are several ways of applying this principle, the best of which is that described by Mr. Chas. Anderson in a late issue. In this a cylinder over the boiler takes the steam and air, the water flowing down hill. Railroad cars are heated in this way. The more common way is to run the pipes "up hill" and have numerous air cocks and safety valves at the highest points. As far as I know all use 2-inch to 1½-inch pipes. The pipes are supplied from the street mains or from a tank. A check valve is put in the supply pipe, which lets the water in but not out of the pipes.

Gardeners using this method claim great results. As far as I have seen or heard, this method is used in my vicinity in cold houses, where they naturally would not fire very hard. When I tried this way several years ago, heating a new house, steam would gather at different points in the pipes, and if we were not there to let it off the circulation would stop. I would not advise using this method. There is as much trouble as with steam, and it keeps a man running around opening air cocks and feeling of pipes to see if they circulate.

There is another method used by some gardeners. The 2-inch pipes are supplied from the street main, or a tank, and have no check valve in the supply pipe. If open in the street main, there is a water pressure of from 30 to 50 lbs., or more, on the pipes all the time. Now, does this pressure affect the circulation or the heating qualities of the water? I am not scientific enough to explain this. Will some one enlighten me? From my experience I don't believe it does make any difference. You simply make the city reservoir your stand pipe or expansion tank, and the pressure shown is the weight of the column of water, every two feet making one pound pressure.

I have been using small pipes in some of my houses for nine years with as good results as the others. I have fooled with this pressure business to my sorrow. Now I supply my small pipes from tanks, and run stand pipes up to their level. The pipes run "down hill," so that the stand pipe takes off the steam. I get better results than when I had on "pressure." I should advise any one building to use 2-inch pipes laid as I have described.

Milton, Mass. H. S. MESSINGER.

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Side Agent for

C. H. C. Machen & Sons, Warmond, near Haarlem, Holland.

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Dwarf Pearl, Double Italian
AND
Diamond Pearl Tuberoses.

We offer a first-class lot of the above sorts, guaranteed true to name and first-class blooming bulbs at \$2.00 per 100; \$3.00 per 1,000; in lots of 2,000 and over at \$2.00 per 1,000, second size bulbs, 20 per cent will bloom first year; price \$1.00 per 100; \$5.00 per 1,000. Objects and smaller bulbs suitable for growing large bulbs for another season's sales. The following varieties: Dwarf Pearl, Double Italian, Diamond Pearl and Early Single Grandiflorum, all warranted true to name. Price, largest size objects and small bulbs 24 cts. per 100; \$2.50 per 1,000. Smaller size objects 25 cts. per 100; \$1.50 per 1,000. Special low rates on 2, 3 and 10,000 lots, offering a rare chance to secure your bulbs at a reduced price. Also early single flowered variegated foliage Tuberoses, first class at \$5 per 100, \$5.00 per 1,000, and of same at \$3 per 1,000.

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Little Rock, Ark.

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Ready about May 1st. Orders now booked for Early White Roman Hyacinths, Paper White Narcissus, Lilium Harrisii, Longiflorum, and Candidum.

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Tulips, fine mixed, per 100, \$1.00.



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READY FOR SHIPMENT APRIL 1.

This superb yellow coleus originated with that thorough and veteran plantman, Mr. John Goode, of Hyde Park, Ill., who first sent out double sweet alyssum, Ralph and Fanny geraniums, and other plants of merit. The plant is really a yellow Verschaffelt (though not a sport from that being a strong grower, with large, deeply toothed and crimped bright yellow foliage. We deem it superior to any yellow in existence, holding its color throughout the season, and standing the sun well.

PRICE.

2½ inch Plants, 4 to 5 inches high, well rooted,
PER DOZ., \$3.00; 25 FOR \$5.00; 50
FOR \$10.00.

We control the entire stock, which is limited.

Mr. P. Kaus, chief gardener at the South Parks, Chicago, says: "It is the best variety I ever handled in my 15 years' experience in the South Park. I have discarded all other yellows in preference to it, and cannot say too much in its praise for garden decorations."

J. C. VAUGHAN,

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GROWERS OF
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Such as

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following on hand at cheap rates: *Ampelopsis Veitchii*, various sizes *Tia*, and *Hybrid Roses*, all the leading sorts, named *Chrysanthemous*, *Præcox Indivisa*, various sizes, *Echeverias*, *Small Ferns*, *Geraniums*, double and single, best named sorts, *Arca Lutescens*, in 2½, 4, 5, and 6-inch pots, *Lantana Borbonica*, *Saxifraga Elegans*, *Oreodoxia Regia*, *Corypha Australis*. Other Palms, such as *Cocco Weddelliana*, *Chamærops Evelsæ*, *Phoenix Retinala*, *Phoenix Raphida*, *Phoenix Tennis*, *Kentias* of sorts, *Glaziovra Insigne*, fancy named *Clematis*, and other vines, etc. Prices given on application.

WM. C. WILSON, FLORIST,

Steinway's, Astoria, L. I.

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SHRUBS
ROSES

Letter for Spring planting the best hardy RHODODENDRONS, AZALEAS, JAPANESE MAPLES and other choice DECIDUOUS and HARDY PALMS, EVERGREENS, SHRUBS, ROSES, CHRYSANTHEMUMS and hardy FRUIT, also selected FRUIT and VINES. Best quality in quantity or specimen at lowest in U.S. Catalogues and estimates on application.

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BULBS! IMMORTELLES!**J. A. DEVEBER,**

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Will remove to 19 Broadway after May 1.

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PRICES ON

NEW CROPRoman Hyacinths, Paper White and Roman
Narcissus, Lilium Candidum, Freesia, L. Har
risii, Longiflorum, etc., for Fall delivery.**NOW READY.**

I offer for prompt delivery without engagement

Gladioli, choice mixed, all colors.	Per 1,000	Per 100.
large bulbs	\$12.00	\$1.20
Gladioli, scarlet, large bulbs	8.00	1.00
" shades of scarlet and crimson	10.00	1.20
" pink and variegated, large bulbs	15.00	1.75
" white and light, large bulbs	20.00	2.50
" yellow, yellow grounds, large bulbs	24.00	3.00
Hyacinthus Candicans, large bulbs	25.00	3.00
Pearl Tuberoses, large bulbs	12.50	1.50
L. Auratum, large bulbs	1.00	0.10

* **BULBS.** ***RICHARDIA ALBA
MACULATA.**

Dry Roots, Extra Strong, se-

lect, \$12.00 per 100.

Dry Roots, Extra Strong,

\$8.00 per 100, \$70.00 per 1,000.

Good Flowering Roots, \$6.00

per 100, \$60.00 per 1,000.

GLADIOLUS.

Choice American Hybrids,

\$20.00 per 100, \$200.00 per 1,000.

GLADIOLUS NAMED AND IN**SEPARATE COLORS**

Prices on Application.

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GROWERS OF

Hyacinths, Tulips, Crocus

Narcissus, Lilies, Etc.

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**FIR TREE OIL**

Hughes Soluble Insecticide

PRICES REDUCED

for the GALLON to

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For Cash with order, less 10 per cent

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Send for our Special Circular containing many offers of Palms, Orchids, Roses, etc., etc.

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of purple, blue or scarlet immortelles, 1, in. long, put up in original packages of 3 yards each, mailed free on receipt of 75 cents for each package; also in original boxes of 2 1/2 yards each, mailed free on receipt of \$4.00 for each box. Address,

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CHRYSANTHEMUMS In Great Variety.**GERANIUMS** Double and Single, very best kinds.**HELIOTROPES** 6 Fine Kinds.**FUCHSIAS** 10 Best Old Kinds.**FUCHSIAS** 8 Best New Kinds.**Begonia Metallica. Abutilon Thompsonii Plena.**

Write us if you want any of the above, as all the plants are strong, in fine condition and sure to please.

V. H. Hallock, Son & Thorpe,
EAST HINSDALE, NEW YORK.**Seeds** GOOD THINGS FOR THE
Garden & Greenhouse BulbsFresh stock of Standard Sorts and Novelties in
Flower Seeds from Paris and Erfurt.A large stock of Pearl Tuberos extra size and
well kept bulbs.Lily Auratum, Gladiolus, Dahlias, Catadium
Esculentum, large bulbs, Clematis, and a full line
of Spring Bulbs and Plants.**JAMES KING,**

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Seeds For the Florist
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First string peonies first

class roots, at moderate

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Papa Gontier, *Comtesse de Froigneuse*,
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and a general collection of all the popular varieties of Roses for forcing. We grow in large quantities bulbs of
Caladium—Fancy varieties.
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We grow thousands of hardy climbers, as
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Ferns, *Palms*, *Dracenas*, *Pandanus*,
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In splendid condition for immediate effects we offer

Anemone Japonica, *Aquilegia*,
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On the P. W. & B. R. R. (10 miles below Philadelphia) 5 greenhouses and small cottage.
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30,000 Rooted Carnation CUTTINGS.

Duke of Orange, Peter Henderson, Snowdon, Lady Emma, Chester Prince, Brussels, Century, Grace Wilder, Buttercup, and a number of other varieties from \$2.00 to \$4.00 per 100. Send for catalogue

ISAAC LARKIN,

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BOUVARDIA PRES. CLEVELAND.

Color, dazzling crimson scarlet, very large trusses and flowers; a free bloomer. No grower should be without it.

BOUVARDIA BOCKII.

A beautiful rose pink of a dwarf habit and very free bloomer. Plants ready April 1st at \$8.00 per 100. The best GERANIUMS in the Boston market are: **GEN. W. S. HANCOCK**, crimson scarlet double; **H. W. LONGFELLOW**, crimson scarlet single. The above are very fine seedlings. Price, \$6.00 per 100. Also,

FOUR NEW GERANIUMS.

MRS. CLEVELAND, a beautiful, very large trusses and flowers.
BREHANT, a brilliant scarlet, very large trusses and flowers.

WM. A. BOCK, salmon, shaded yellow, the above three are single.

WM. A. BOCK, a very light pink, shading to white on the outer petals; double.

They are all very fine seedlings, grow \$1 for the set. The above have all received the First-class Certificate of Merit. Address,

WM. A. BOCK, North Cambridge, Mass.

CHARLES J. POWER, FLORIST.

SOUTH FRAMINGHAM, MASS.

Greenhouse, Bedding, and Miscellaneous Plants.
Flowers and Floral Decorations, for Parties, Weddings and Funerals, furnished and arranged to order.

AN HONEST CALLING.

"When Royal funds are running low,
Then up and down the streets I go,
By honest means my purse to swell,
And benefit mankind as well."

It makes a stir along the line
To see the scepter and the Sign;
A Queen I have, but what Queen can
Compare with haughty Puritan?



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We have bought the entire stock of the Puritan Rose from Mr. Chas. F. Evans, of Philadelphia, because it is the most remarkable and valuable rose yet introduced. Our reasons for thinking so are as follows:

1st. Because it is the most beautiful white rose extant, surpassing in every way that grand old favorite Mabel Morrison.

2nd. Because it is a robust grower, and perfectly free from mildew and disease of every kind.

3rd. Because it has more beautiful foliage than any other rose. It is leathery in texture, of a dark beautiful green and comes up well about the flowers in the manner of Baroness and Mabel Morrison.

4th. Because a free and continuous bloomer, being in this respect away ahead of the American Beauty.

5th. Because it is equally beautiful as a bud or as a full blown rose. As a full blown rose it will measure 5 inches across.

6th. Because its keeping qualities are remarkable. The buds will keep ten days, full blown roses a week if placed in water and kept in a warm room.

7th. Because its sells readily at a high price. In all our experience with roses, we have never seen one so much admired.

We have not yet decided how we will offer this rose for sale, but we have thought of selling it this year only in LARGE QUANTITIES under agreement as to the minimum price plants and blooms are to be sold at for next season, and sending only a limited number of plants to each large city so that those who work to invest largely in the roses can do so with the certainty of good profits.

Correspondence is invited and a large photograph showing a house of it in bloom can be had for 25cts.

We carry an immense stock of American Beauty, Wm. F. Bennett, The Bride and all standard varieties of cut flower roses. Our stock has the reputation of being the healthiest and finest in this country. Trade catalogue sent on application.

B. A. ELLIOTT CO.

PITTSBURGH, PA.

White Ants.

A correspondent wishes for a remedy for white ants, and having had some experience with them and finally coming off victor, will give my mode of dealing with them.

If an old greenhouse, there is no other way than to remove the soil from the benches; then after they have become pretty well dried out, mix Paris green in water as for potato bugs, and with a common watering-pot give the benches a thorough drenching, also the sides of the house and the supports, and you have them. The same soil can be returned if it is desirable to do so.

These ants eat little channels on the surface of the lumber of the sides and supports of houses, covering them over with soil or even wet sand, building up to the bench; then they go through the same process of furrows on the upper surface and in the crevices of lumber, and finally tunnel up to the pots into the soil where plants are growing. The Paris green adhering to the surface of the lumber proves to be too much for them, and as they will not go where they cannot make a covered runway, the house is quickly rid of them.

For a new house the same application will prevent them from ever getting a foothold. I have tried ashes (wood) and carbolic acid with but little success.

A. D.

THE ANNUAL REPORT of the superintendent of common and public grounds of Boston for 1887, is received from the superintendent, Mr. Wm. Doogue. It contains a sketch view of the conservatories it has been proposed to erect in the public garden, and a diagram of a new plan of heating by hot water in addition to an exhaustive report of the condition of the cities' parks, gardens, etc.

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Strong plants in 2 in. pots, per 100 \$6.00

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And Versicolor in flats \$2.00 per 100, Good stock 20 Pearl Roses in 2 in. \$1.00 per 100, Colors Golden Heider and Vars. \$2.00 per 100. Packed light, and satisfaction guaranteed.

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Beautiful New and Striking Variety. "PEARL."

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Each color per pkt., 25 cts., per 1,000 seeds \$1.50.

Pot plants of the above, in full bloom, were exhibited by Mr. Zirugibel at the Florists' Convention in Philadelphia last season, and were greatly admired by the members present. WE HAVE OBTAINED HIS ENTIRE STOCK OF SEEDS, and offer it at the above low price.

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PLANTS of above varieties out of 2 1/2 inch pots; prices given on application.

SEED of our own hybridization and crossings of above plants, in packets of 30 to 40 seeds each, 25c, or 5 packets for \$1.00 by mail.

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latest Novelties, and the best in the East.
Pure and strictly First-Class. See for new Circular
and Special Price List to the Trade.

ALBERT BENZ, Douglaston, N. Y.

PAPER SEED BAGS

For Flower and Vegetable Seeds,

CLARK BROTHERS, Manufacturers, 61 Ann St. N. Y.

New York.

C. F. Klunder has made a rich exhibition of specimen plants for Easter sale in a house rented for this purpose on 26th st.

The carnation "Andalusia," which never shows a streak of "sport," is the purest yellow, and admirable in cut flower designs.

Mr. Ed. Jansen left March 30 for a trip through England, France, Germany, Austria and Italy, in search of new styles and new material for fall trade.

Siebrecht & Walley will have their plant hospital well filled after their shows are over. The large specimens look as though they had been through the wire.

The April meeting of the New York Horticultural society in Cooper Institute was but sparsely attended. There was no floral display. Ten new members were added.

Not a church altar in this city but is decorated for Easter, unless it is the Quaker meeting houses. And no matter how poor the mission church, the reading desk has its simple bunch of flowers.

The custom for estimating on decorations to be done is declining. First-class florists are tacking in a different direction. More patronage and confidence is obtained by doing a handsome job and exacting a fair price for it.

Few commercial florists in this region grow Passiflora princeps. S. J. Burdell & Co. are the only ones who have it in any quantity. They are besieged with applicants, but need it all for their own use. Why will not some one take the hint? A word to the wise, etc.

The main thoroughfares of this city from 14th st. to Central park are lined with plants and cut flowers. The sidewalks and corners where floral stores are located are bordered with blooming plants, and flower peddlers with trays and baskets of bouquets and loose flowers are ubiquitous.

Large orders for small potted plants have been filled by growers, these to be the Easter gift to Sabbath-school children. The custom of presenting each child with a nosegay has been superseded by giving a plant, which, being something alive, to tend and care for, gives permanent delight.

The building in which Reed & Keller, florists' wire workers, are located was the scene of a fire April 8. The reports of some New York papers gave the impression that their factory was destroyed, and the gentlemen referred to request us to state that the part occupied by them was not injured in any way, and that they are still in perfect running order.

The trade in window boxes has declined materially during the last two seasons. The fashion is to go early to the country, so that town residences have closed windows after May 1. Clubs, restaurants and public gathering places are beginning to show potted plants on sills, and will next week bring out their jardinières of pansies and daisies if the weather permits.

OMAHA, Neb.,—At a meeting of the Douglas County Hort. society, March 5, it was resolved that any member or non-member of the society may propose in writing questions pertaining to horticulture or floriculture which they desire to have discussed and answered by the society. Such questions to be addressed to the secretary and placed on file to be called up and disposed of in regular order. A committee was appointed to secure a suitable building for holding an exhibition the coming summer.

Ed. JANSEN,

124 West Nineteenth Street, NEW YORK.

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WILLOW GILT

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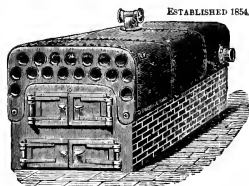
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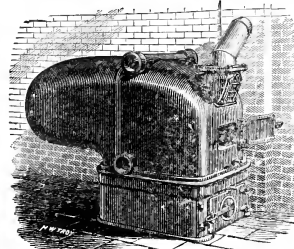
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Lycopodium in its season at lowest prices per
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For destroying ground moles in lawns, parks,
gardens and cemeteries. The only PATENT
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THE AMERICAN FLORIST

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general office at Chicago.

SOCIETY OF AMERICAN FLORISTS.—Robert
Craig, Philadelphia, Pres.; J. C. Vaughan, V.
Pres.; M. A. Hunt, Treas.; Edwin Lonsdale,
Chestnut Hill, Philadelphia, Sec'y. The third
annual meeting at Chicago, August 16, 17 and
18, 1887.

THE WEEKLY FLORIST.—Votes for the
weekly are still coming in; we have also
received a number of votes against the
change. Though we believe that the
FLORIST will undoubtedly become a
weekly in time, we are inclined to think
that the time is not quite yet at hand.
We, however, hold ourselves in readiness
to immediately make the change when-
ever conditions shall seem to warrant it.

RECENT EVENTS but confirm the im-
provement noted in our last issue, that
the catalogue mail trade in the seed
business has been pushed to the high-
est point where extensive advertising
and expensive catalogues can show any
fair returns for the investment. The
purchasing public are already looking
toward something more substantial than
showy advertising. Seedmen and florists
may be called upon in the near future
to climb more slowly the ladder that
leads to a permanent success.

NEW YORK, April 26.—A large num-
ber of people attended the opening of
the New York Hort. society's show this
morning at the Eden Musee. The fol-
lowing are among the chief exhibits:
William S. Kimball, a choice selection
of orchids. Charles A. Dana, a fine
vine show of calceolarias, gloxinias and
Himalayan primroses. Pierre Lorillard,
a very good collection of fruits and
vegetables. Bidwell Brothers, cut pan-
sies, representing all strains. John May,
N. J., a big show of roses, including speci-
mens of Her Majesty, Baroness Rothschild,
Mabel Morrison, Merveille de
Lyon, Bennett, Bon Silene, the Bride
and Mermet. Jay Gould, a grand lot of
rhododendrons, azaleas and some choice
specimens of botanical interest. The
botanical gardens of Harvard University,
a collection of orchids. John H. Taylor,
roses, including Mermets, Perles,
Niphetos, Bon Silene, and a collection
of carnations. Peter Henderson, an en-
tirely new rose called Dinsmore, after Mr.
Dinsmore, of the Adams Express Co.,
hyacinths, roses, tulips, azaleas, spiraeas,
and double yellow daisies. A complete
report will be given in next issue.



Complete Report.

BALTIMORE.—Easter sales
were larger than ever before,
every florist in the city having all he
could do. The demand was for cut
flowers in preference to baskets or de-
signs, handsome boxes of cut flowers
and corsage bunches forming the bulk of
the sales. Pot plants sold quickly for
decorations. The churches decorated
more than ever before.

R. J. H.

MILWAUKEE.—The total sales for Easter
were a very little larger than last
year. The demand for made designs was
not as large while the call for loose flowers
showed an increase, especially for
lilies and roses. Trade in pot plants was
about as usual. The churches hardly
came up to former seasons but the de-
mand for private use was larger.

C. B. W.

ST. LOUIS.—Easter sales of cut flowers
were more than double those of last year.
The demand for made-up work was good
but was very heavy for long-stem flowers.
I think that plants were not called
for as much as usual. Church decorations
were about the same but many more
ladies wore flowers than usual; the
ministers of many of the churches re-
quested that flowers be worn by ladies of
the congregation.

J. M. J.

MEMPHIS, TENN.—The Easter demand
was largely in excess of all previous
years. This is especially the case where
the Catholic element predominates, and
most other denominations seem to be
falling more and more into line in this
respect. The call was principally for cut
flowers and plants, a falling off in that
for made designs being noticeable.
Flowering plants sold briskly and was
unable to supply the demand.

H. L.

CINCINNATI.—There is not one florist
in the city who complained of poor busi-
ness at Easter tide. Most of them were
compelled to put in twenty hours out of
the twenty-four on Saturday. The cold
spell preceding Easter was responsible
for a business boom that was nearly as
good as that experienced Christmas
week. The florists alone had the flowers
to sell and consequently they had the
call. No unusual decorations were made
by the churches but the demand for all
sorts of blossoms was brisk. No better
Easter business has been done here for
years.

M.

ROCHESTER, N. Y.—The Easter de-
mand was larger than last year, the call
being more for loose flowers than designs.
An increase was noted in the call for
pot plants. The churches did not use as
many designs as usual but used plants
largely. The weather was very favorable;
prices ranged low owing to the recent
cutting in rates by the trade here.

M.

CLEVELAND.—Easter trade was good,
all florists reporting an increase over last
year. Very few large designs were made,
buyers calling mostly for loose flowers.
Pot plants, such as lilies, hyacinths, spiraeas,
deutzias, tulips, etc., were in excel-
lent demand. Palms and decorative
plants were used in almost all of the
churches and Easter was more generally
observed than ever before. No new fea-
ture in floral work of any note was intro-
duced.

E. G. C.

PITTSBURGH.—We estimate that our
Easter trade was about double that of
last year. The demand was almost en-
tirely for loose flowers. We sold a great
many flowers for church decoration but
cannot say that the quantity was any
larger than in former years. We think
the bulk of the flowers sold by us were
for presents and to be worn or car-
ried on Easter Sunday. We did not notice
any new features in decorations or
designs. The bulk of the flowers sold
were those which could be sold at a moderate
price.

B. A. E.

BUFFALO.—Easter trade was good with
everybody and the total business done a
good increase on last year. The demand
for made designs for churches grows
smaller every year and the sale of loose
cut flowers correspondingly increases.
There was a large demand for pot plants;
much larger than former years. A hand-
some plant for an Easter gift was the fea-
ture of this season's business. The de-
mand for roses and tulips for street wear
was larger than ever before. Pink was
the favorite color. The decoration of
churches was about as usual; plants of
palms, lilies, etc., were used mostly.

W. S.

DETROIT.—Easter trade was much
larger than ever before, the total sales be-
ing far beyond former years. The de-
mand for made designs has fallen off,
and has been succeeded by a call for
bunches. We could have used more
longiflorums and candidums. White tu-
lips were sought for, and these, with hy-
drangeas, azaleas and spiraea were not
sufficient for the demand. We had a few
spiraea in extra fine condition and sold
them all at good prices. Church decorations
were about as usual, Catholic
churches using plants and others cut
flowers only. Nothing new in decorations
was noted. Smilax sold at 50 cents
a string.

PHILIP BREATHYER.

WILMINGTON, DEL.—The display of flowers at the churches Easter was the most elaborate ever seen here.

GRAND RAPIDS, MICH.—The Easter trade was much better than usual. Very few set pieces were made, the volume of the business being in cut flowers.

J. A. H.

LEAVENWORTH, KANS.—Mr. A. M. Gist has sold out and will retire from the florists' business. He is succeeded by Kirkpatrick Bros. There was a brisk demand for cut flowers Easter week; roses and carnations being in best demand. Lilies were very scarce.

TORONTO, ONT.—The Easter trade was in general very good, with a demand chiefly for lilies and roses in large quantities. Decorations were about as usual. An increased demand for pot plants was observable. Prices ranged high for some flowers, such as candidums, but this did not deter buyers.

LAWRENCEVILLE, PA.—The children and teachers of one Sabbath school here were each presented with a pot-plant Easter Sunday. The children were all requested to care for the plants and to bring them to the church on "Children's day" to decorate the church at that time. Fully 1,000 plants were distributed.

INDIANAPOLIS.—Easter trade was good; better than former years. Weather was fine though somewhat warm to handle shipped flowers. Designs were not in demand, mostly loose flowers and bunches being used. Blooming plants sold well. Church decorations were generally cheap affairs; plants were used to the exclusion of set designs.

W. B.

HARRISBURG, PA.—Sales at Easter exceeded those of last year, the demand being much larger than the supply. The call for designs was about equal to last year, the increase being in loose flowers. Blooming pot-plants sold far better than usual at this time and taken altogether, the trade was very satisfactory. The outlook for spring sales is very encouraging.

B. & P.

LOUISVILLE, KY.—The Easter trade far surpassed past seasons, the demand being more for loose flowers and pot plants than for set designs. The churches used more flowers than ever before, the lilies, of course, being in best demand. Taking the trade all around our belief is that the trade was fully 25 per cent better than last year.

G. T. & SONS.

SAVANNAH, GA.—One florist states that the Easter demand was much greater than last year, while another declared positively that it was less. Perhaps each one judged by his own sales. Any one who carefully noted the number of corsage bunches worn by the ladies and the decorations at the churches, however, would be apt to endorse the statement of the first florist quoted.

N.

SPRINGFIELD, MASS.—Easter trade was better with us than ever before. I presume other dealers report the same. The demand was for choice boxes of cut flowers rather than for made-up designs. Longiflorum lilies were in great demand and home-grown were scarce. For church decorations, potted plants were largely called for. Cool azaleas are scarce, but what few were offered found ready market. On the whole, never was there an Easter when everybody appeared to be so much alive as the one just passed.

Some of the churches used marble figures of angels in connection with their floral decorations.

FILTON.

LOS ANGELES, CAL.—Easter flower trade was passably good. Church decorations were carried out with an elaborate detail rarely attempted here before. As callas have been blooming with unusual profusion this season, they, along with orange blossoms, were as usual the salient features in all the floral work. As virtually all church decoration here is performed exclusively by amateurs, it would be invidious to criticize any of it adversely. Private demands on florists, however, for floral Easter gifts were quite numerous, to the general astonishment of the trade, as such a custom has never obtained here before. May the habit continue to flourish, and grow apace each succeeding year.

W. S. L.

ST. PAUL.—I do not think that the churches here or in Minneapolis expended more money in decorations than last year, but there was a marked increase in the call for pot plants, though not many more were used as no very large quantity were to be had in bloom owing to the dark, dull weather the last few weeks. The demand for made designs was rather less than last year, most churches ordering their flowers loose. A great demand for candidum lilies was noticed, but this was probably due to their scarcity. A marked feature of this Easter was the general wearing of flowers by ladies at church in the morning; the quantity of flowers used this way was something unprecedented.

AUG. S. S.

DES MOINES, IA.—The total Easter sales were nearly double those of last year, with more call for loose flowers than for made designs. No large designs were used at any of the churches, the largest being a 12-inch wreath. The designs were mostly hung in memorial windows. Altar decorations were entirely plants and loose flowers arranged in vases. There was a large demand for roses, callas, candidums and Harrisii lilies both in pot plants and cut bloom. Sales of pot plants were very large. The florists here do not grow tropical decorative plants as the people are not willing to pay enough for plant decorations to justify keeping up a stock. At the churches the floral decorations consisted chiefly of "spring bouquets" and corsage bouquets, many ladies wearing large bunches of roses. Many flowers were sent as Easter presents, quite a number going to sick rooms.

R. L. B.

NEW ORLEANS.—We have but little trade at Easter worth mentioning. The vegetation being so far advanced, and all the gardens being in full bloom at this season of the year, the flowers used in the churches are contributions from the several members of the different congregations, and are arranged by the ladies themselves. Flowers furnished by florists are loose, no designs of any consequence being made. Pot plants were used this year more extensively than in former years, also a great many garlands. The flowers most in demand were the candidum and calla lily; a very few of the former were in bloom as it was rather early for them. The great day here for flowers was on decoration day of the Confederate dead, on April 6, when the tombs of the several military organizations are elaborately decorated with flowers, designs, etc. We are suffering very much for want of rain; the flowers are looking very bad on account of the drought.

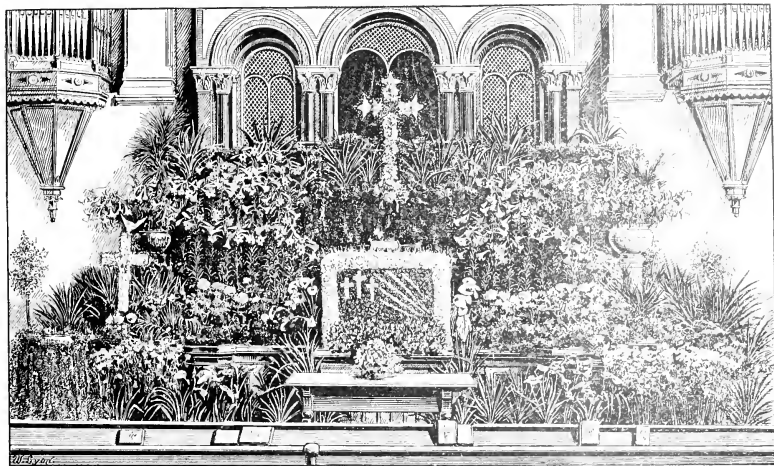
H. A. DESPOMMIER.

PITTSBURGH.—We made, as we always do, great preparations for Easter, but for once our records were broken by the tremendous influx of people to the store. From 8 a.m. till 8 p.m. the centre aisle of our store was impassable. Loose flowers evidently held sway; of course there were pieces made up, but nothing new or striking; more attention was given to the details and harmony of the whole than in one particular piece or design; this refers to the churches. Plants were very largely used. Roses, lilies, tulips, and hyacinths were the predominants in flowers. Single plants were not in such demand, as committees were formed who did better by taking a quantity. The receipts were larger than last year. Altogether it was a grand surprise, and the very fierceness of the business which lasted from 5 a.m. Saturday till 12 noon Sunday told of tired limbs and bodies, but well pleased with the Easter of 1887.

M.

CHICAGO.—A canvass of the trade here indicates that the total volume of the Easter trade was at least one-fourth larger than ever before. A majority of the florists report that the calls for loose flowers greatly exceeded that for set pieces though several who do a large trade, report that the reverse was the case with them. To show the contrast between the two extremes in this respect the order-book of one florist which had the liberty of examining showed that out of forty-four orders, thirty-eight were for boxes of cut flowers and only six for pieces, while that of another florist out of forty-six orders, thirty-five were for pieces. The general report, however, shows the demand for loose flowers to have been unusually heavy. It is certain that more flowers were sold to people who placed them in vases in their windows or to ladies to wear to church and on the street Easter Sunday than ever before. This may account for the large quantity sold loose. The use of pot plants was large and the total sales of these were considerably ahead of former years. Flowers were in fair supply, with the exception of lilies. Candidums were very scarce, and those to be had were of very inferior quality.

ALBANY.—The Easter trade in this city was considerably in advance of previous years. The churches vied with each other in the multitude and variety of their decorations, thus creating an extensive demand for all kinds of pot plants and cut flowers. Formerly, many designs were used, but of late years, the ladies having charge of the decoration of their several churches, seem to prefer grouping foliage and flowering plants in charming profusion. One of the most effective groups seen was composed entirely of cyclamen. The bright yellow of the flowers showed to great advantage in the subdued light of the church. Amongst other noticeable work used for the purpose of decoration was a 10-foot cross, made entirely of yellow tulips. This was novel and attracted considerable notice. The flowering plants principally used were azaleas, lilies, hydrangeas, marguerites and tulips. Of these there was a large supply, but all were sold at profitable prices. There was, also, a steady demand for loose flowers, mostly for the purpose of being worn upon the person. In the past, the demand was principally for baskets and bouquets, but tastes have changed and flowers with long stems are chiefly sought. There was no particular demand for any special flower, roses, as usual, leading the list, with violets and



ALTAR DECORATION AT EASTER NEW YORK CITY.

pansies a good second. Many pot plants were sold for the embellishment of private houses; and it is gratifying to find that the custom of using plants and flowers at Easter, seems steadily on the increase.

PHILADELPHIA. — The demand for flowers and plants was far in excess of any preceding year. This is the report generally amongst all classes of florists. The weather was everything that could be desired—bright, yet not too warm—favoring everybody—dealer, grower and purchaser. Crops were good generally, in quality and in quantity. The dealer and his assistants have their hands full at this season of the year. Many would-be customers, losing patience, leaves the store without even being able to attract the attention of the salesmen. Nor does there seem to be any remedy. The kind of help of any value in this emergency is not obtainable at any price. The lack of system in the management of the Easter business is not so apparent in some establishments as it is in others. Some florists report that loose flowers were in more demand this year than designs, while others say their orders for made up work were proportionately greater this year than the call was for cut flowers. *Lilium Harrisii*, or *floribundum*, and *L. longiflorum* are the ideal Easter lilies, *L. candidum* being too lanky to use in such great numbers as the first-named varieties are used at this season. *Azalea* plants were sold, of course, in very large quantities, as also were *Hydrangeas* *otaksa* and *hortensea*, especially the former variety, which were disposed of at satisfactory prices in from 6-inch to 8-inch pots by the hundreds. It is estimated that there are double the number of *hydrangeas* sold in one year in this city than there is in any city in the United States. It has been growing in popularity for years and this season they have sold better than

ever. In addition to the churches which have had more or less floral decorations at this glad some season for an unknown period, other churches which were in times past wont to frown upon flowers as frivolities, are now falling into line, and, in consequence, more flowers were used than usual. L.

Easter Altar Scene.

The altar decoration pictured is a design of Frank Hamilton's carried out with plants and cut bloom from his Stapleton, Staten Island greenhouses. The back ground is filled with foliage, lilies and roses. One hundred and fifty blooming plants of *longiflorum* are included with *hydrangeas* and *azaleas* in quantities. A picture is placed in the foreground, which illustrates the Easter theme. The lower part of it shows the buds of tulips, narcissus, and roses, and on a blue horizon made of myrtle flowers are three crosses, composed of small white flowers. The picture is framed in white carnations and sets among a profusion of rich plants.

Flower Festival at Los Angeles, Cal.

Our annual flower festival is now in full blast, and though the decorations of the hall are both tasteful and effective, not nearly such a varied collection of flowers are shown as were exhibited last year. Our bulbs are all through flowering, while last year the hyacinths, anemones, ranunculi, *ixias*, *spuraxias* and tulips formed a leading feature of the display.

The hall is large and everything has to be on a mammoth scale. A slipper twelve feet in length, said by a dyspeptic St. Louis man to have been dropped by a Chicago belle, was made wholly of double pink geraniums; and a ship of scarlet

geraniums, eighteen feet in length on a sea of blue pansies, was at least remarkable for size if not for beauty.

Everything is mammoth, even the "call" of the ladies for donations of 15,000 callas, and an informed that the call was responded to the first day with over 20,000. One day, having a capacity of three tons, having gathered up a full load in bulk. Imagine a car load of callas: if the strain is not too great—for that was about the total amount brought in. All other flowers are badly damaged by a heavy, protracted rain storm, and works injury to the busy amateurs who have in hand the arduous task of keeping these enormous designs renewed and refreshed. Still, so popular is the charity for which these flower festivals are held, that they are and will be well patronized, and the public not too critical about the equivalent, as witnessed by average daily receipts of \$2,000.

The phenomenal growth of Southern California during the last year or two has stimulated business of all sorts, and the nurserymen and florists have not been left in the shade in the general prosperity prevailing. W. S. LYON.

NEW ORLEANS. On April 6, a bronze equestrian statue of General Albert Sydney Johnston erected on the tomb of the Army of the Tennessee, at Metairie cemetery was unveiled. The floral decorations and tributes were very elaborate and numerous. Among the designs should be mentioned a full-sized Napoleon can of yellow immortelles mounted on wheels of white roses, a chair two and one-half feet high, the seat of pink hybrid roses, the back a Confederate battle flag, the arms of pansies, and the legs and borders of small white flowers. A pillow three feet in length lying on a full-sized sabre, in the centre of the pillow was a bunch of Bermuda lilies sur-

rounded by clusters of pansies, the sword of white camellia with hilt of yellow. These and several others were from Mr. E. L. Baker's establishment. Maitre made a globe of choice roses resting on a bed of roses from the sides of which branched Sago palm leaves; surrounding the globe was a "lone star" of white roses and lily of the valley; he also made up several other good pieces. Smaller designs and loose flowers were used in profusion, being purchased and contributed by numerous citizens. A gigantic basket, four by ten feet, of roses, a shaft of roses and mixed cut flowers, five feet in height resting on a base of white roses and numerous other conventional designs were noticed. R.



The Cypripedium.

BY W. A. MANDA.

This well chosen name was given by the celebrated Linnaeus to the European plant, the *C. calceolus*. Since that time many tropical species have been discovered and introduced, and of late years numerous garden hybrids produced, so that at present we have in cultivation over two hundred species, varieties and hybrids, including the South American kinds, which the celebrated orchidist, Dr. Reichenbach, places under the generic name of *selenipedium*, but which will always be considered by the cultivator as *cypripedium* merely. This beautiful genus is a member of the great orchid family. Its distinguishing mark is the peculiar structure of the flower. This consists of a dorsal or upper sepal, the lower sepal, two petals, the labellum or lip, generally called the slipper, shoe or pouch; then the shield-like plate or sterile stamen, two lateral fertile stamens, 3-lobed stigma, and 1-celled ovary. The South American species answer to the same description, save that in these the ovary is 3-celled, and for this reason they were justly separated from the *cypripedium* proper.

In order to describe them properly we must divide them into three classes—namely, the hardy, or deciduous kinds, the evergreen kinds and the *selenipedium* or South American species and its progeny. All of the deciduous section are strictly terrestrial plants, with either thick and branching rootstock, or a thin grass-like underground stems, terminating with a bunch of fibrous roots. A few are stemless, sending up only a pair of leaves, from whose center a scape rises bearing a single flower, but the majority have downy stems from eight to thirty inches high, bearing from one to six flowers. The leaves of both are light green, never spotted, downy, broadly ovate, plaited and of very thin substance. The flowers are generally large and showy, the lip being much more conspicuous than the sepals and petals, which are generally narrow and small in proportion to the large ventricose, usually roundish lip.

The evergreen kinds are all tropical; a few are real epiphytes, while others, although found growing on the ground,

yet attach their roots to any hard material in the same manner as real epiphytes, and therefore should not be called terrestrial. They all have a thick and short rhizome or rootstock, from which the leaves are produced; these are, without exception, thick and leathery, in some species long and green; in others again shorter and broader, beautifully spotted and mottled; they are always smooth and often shiny as if varnished. All of this class are strictly stemless; the scape or root-stem rises from the middle of the leaves and bears sometimes as many as ten flowers, but the majority are one-flowered. Invariably the flowers are large and showy, beautifully colored and of very long duration. As a rule the most conspicuous part is the dorsal sepal, but the petals which vary in size and length, also the large lip which is round in some species and long in others, are equally beautiful.

The last class—namely, the *selenipedium*, comprises mostly terrestrial plants, but a few kinds are found growing on high trees. They have either a short or long stoloniferous rhizome, which terminates with a growth of leaves; these leaves are generally long, bright green, in some species having yellow bands. Some are grass-like, others again are long, gracefully arching, and of a thick texture. Most of those now in cultivation are stemless, but some have real stems. The *S. chica* is said to grow to the height of fifteen feet. The stems in all of this species are prostrate and in some cases over thirty flowers are produced on one stem. The flowers are large, the dorsal sepal and also the lip are usually long and narrow, and the petals in some species reach the extraordinary length of thirty inches. The different parts of the flower generally harmonize in color and thus produce a very pleasing effect. To this class also may be safely added the *Uropedium Lindenii*, which is very much like a pouch-like stemless.

Botanic Garden of Harvard University.

Cambridge, April 14, 1887.

(To be Continued.)

Calceolarias.

An unbroken bank of more than a hundred plants of these in gorgeous bloom now (middle of April) fills the centre and end benches of one of our small greenhouses and affords a blaze of floral color unapproached by any other class of plants we grow. So lovely, and yet so seldom seen! So generous and easily grown, and yet so seldom cultivated! Surely the *calceolaria* deserves the trade florists' attention because of its great profusion of decidedly showy blossoms and their suitability as cut flowers for massing in room decorations. They are something aside from the line of flowers usually used in decorations, and there is an oddness in their color and formation that rivets the attention and admiration of guests.

I grow the Dalkwith and International strains; they are excellent, so too are most all choice strains. I sowed the seed in shallow seed-pans, 21st of June, and placed the pans in a cold frame facing north, and in a cool sheltered place. The frames were set on a platform raised about two feet from the ground on posts, as a precaution against crickets and snails. As the seedlings come up they were pricked off into flats, and when they had grown considerably in these they were potted into 2½ or 3-inch pots. Later on, as their growth ad-

vanced, they were re-potted into 4, 5, 6 or 7-inch pots. Had them well-rooted every time, but never pot-bound, before they were re-potted. About the middle of November most of them were in 5 and 6-inch pots. As soil, I like a rich, but very porous compost and use turfy loam chopped (not sifted), fine, with a liberal mixture of dry, finely-broken up manure, and some leaf-mould and sand. And I drain thoroughly all pots of any size used for *calceolarias*.

During the whole period of a *calceolaria's* life it requires copious waterings, and should never be allowed to become dry. Water gently, but abundantly, and under the leaves and not over head except in the case of young plants in the frames. In warm, summer weather I usually sprinkled the little plants overhead early in the afternoon, so that they might be well dried before night. I never give manure water till after they get root-bound in their flowering pots, and then stop it when the plants come into bloom. Always keep them covered up dry in the event of muggy, misty, or wet weather.

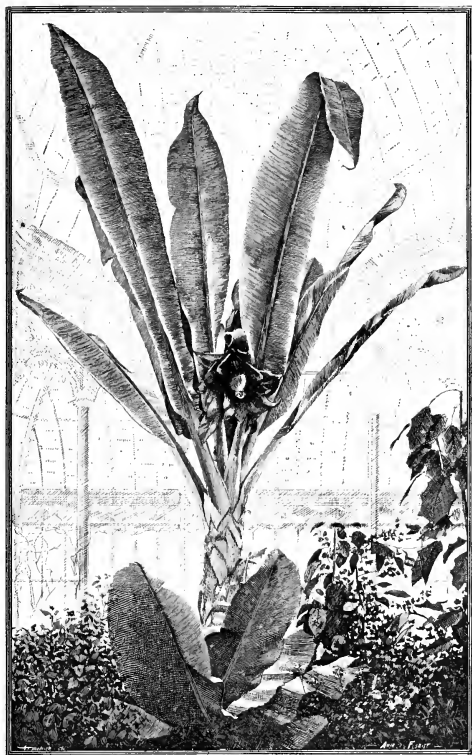
Calceolarias love light, but dislike direct sunshine, hence, during their life-long existence I keep them shaded from sunshine. They love cool weather. A slight frost will not hurt them but it doesn't do them any good. I leave them in frames as long as I can safely venture to do so by covering them with mats and shutters, but about the end of November remove them to a cool greenhouse, where they occupy benches near the glass. During winter we merely keep frost out of the house—run it at a minimum of 35°. In favorable weather we ventilate freely, and in order to maintain their healthful vigor even if the weather is cold, a little fire heat and ventilation at the same time, in the day time renews and sweetens the atmosphere.

By a little humoring we can have *calceolarias* in bloom in quantity from January until May, but they are in their finest condition in April.

They are especially subject to be infested with green fly. From the time they germinate till they are nearly in full bloom I use tobacco stems freely under and about them. This keeps them clean in the frames, but is not enough in the greenhouse; here, besides old-renewed tobacco mulchings and vaporizings, we must fumigate them frequently. During the winter months be very particular to keep the foliage dry, and remove every decaying or mouldy leaf as soon as you notice it.

WM. FALCONER.

FERNS.—Most of the useful varieties are very readily grown from spores. Mr. Geo. Wittbold, Chicago, has just potted off 10,000 seedlings from one sowing, and will be unable to utilize many thousands, still in the seed bed, from lack of room. He sows the spores in a bed made on a greenhouse bench, boxed in and provided with a sash covering. Fresh soil from out of doors is placed in the bottom to the depth of three or four inches—using no manure of any kind, as manure is poison to ferns—on this is placed sphagnum moss, which is about half an inch thick when pressed down firmly. The moss is then sprinkled to make evenly damp, and the spores sown on the surface, and lightly sprinkled with the sash put on to stay until the seedlings are up and making true leaves. The bed is not again watered unless spots appear very dry when they are lightly sprinkled.



MUSA ENSETE

Water must be used with caution, and it is preferable to allow the bed to become somewhat dry than to water more than is actually necessary. Only rain water should be used at any time with ferns. About three parts leaf mould to one of loam, with a sprinkling of sand, makes the best soil for potting the young plants. Manure of any kind should never be used on ferns; when the soil requires enriching use leaf mould, rotten wood, muck or peat, but never manure. Mr. W. sows the spores right from the leaf as soon as they are quite ripe, but they will keep their vitality a long time if properly taken care of.

Musa Ensete.

This noble banana, which is a native of Abyssinia has, owing to its rapid growth and from its leaves being somewhat less liable to be split by the wind than most musas, come rapidly into favor as a tropical decorating plant. We give an illustration of a plant recently in bloom at Sacramento, Cal., from a photograph

sent us by Mr. M. F. Dillman, manager of the Bell Conservatory Co. of that city, the owners of the plant illustrated.

Mr. Dillman states that the plant was three and one-half years old, and that it was over twenty-seven feet in height; some of the leaves measuring fifteen and one-half feet in length by three feet in width. At the base of the trunk the circumference was over six feet. The petals of the flower were three feet in length.

A few of these noble bananas placed during the summer months on the lawn in an appropriate position add a tropical effect which probably no other plant would give at as small an expense. Many of our European exchanges speak in glowing terms of its value for the purpose stated.

IPOMEEA BONA-NOX.—What's the use of nicknaming this grand old plant—I. noctiphylon or I. noctiflora? Isn't the proper name (I. Bona-Nox) good enough? W. F.

Washington.

Trade in cut-flowers has been very active here during the past winter and florists generally did well. Nothing, however, really novel in decoration, or deserving special mention, has been brought to my attention. The introduction of numerous live canary birds, whose cages are embowered in flowers and plants, is a feature which promises to find favor here as it has elsewhere. On the whole, flowers were utilized more for the informal embellishment of apartments and upon dresses than in the more conventional designs known to the trade, the demand for loose flowers being exceptionally large.

The principal event of the season in the floral line was the grand opening, April 4, of John H. Small & Sons' new and superb floral salesroom on southeast corner of 14th and G streets. The salesroom occupies the entire main floor of the substantial five-story building recently erected by the Smalls in the most central business quarter of the city. Adjoining in the rear, and fronting on G street, is a spacious packing and shipping room above which a conservatory of elegant design is to be constructed, with entrance from the rear of the salesroom, by means of an extra-wide stairway, thereby greatly adding to the effectiveness of floral display. All the woodwork of the fixtures in the salesroom is solid cherry, the tops of the counters consisting of highly enamelled encaustic tiles, in plain, subdued colors, edged with white marble, the whole thing being decidedly in excellent taste. Two-story glass cases extend along the entire south wall, on either side of an immense mirror placed in the centre; the counters and lower portions of the cases being all fitted up with spacious drawers. There are three large show windows, two on G street and one on 14th street, the latter on this occasion, having in the centre a huge vase, filled with a hundred or more of select Jacques, surrounded by azaleas, hydrangeas and Easter lilies, flanked by choice plants of the bright genesta, the front consisting of a perfect bank of lilies of the valley, edged with ivy. Immediately facing the main entrance to the salesroom, stood another large vase, filled with superb Marquis de Castellane, back of which extended a long temporary stand, and around the base stood gillies, alternating with ferns, the first tier above being composed of hydrangeas, interspersed with grasses, while the centre was made up of a double row of Easter lilies. Midway on this stand arose a beautiful rustic birch cross, some five feet high, with arms eight inches in diameter, the whole surmounted by an exquisitely-poised white dove. On the left of this stand, somewhat to the rear, stood a large fountain basin, containing plants of hydrangea, artfully arranged, to appear as the flowering clusters of an immense single plant. The so-called "Rose counter" to the right of the centre stand, was filled with numerous vases of the choicest buds. The left rear counter was loaded, with callas, tulips, Jonquils, gladioli, mignonette, violets, smilax, etc., etc., while at the counter opposite, on the right, three assistants were kept constantly busy putting up flowers for the numerous patrons in attendance, the place being more or less crowded by visitors throughout the entire day. The broad stairway leading to the proposed conservatory afforded an excellent opportunity for the effective display of daisies, hyacinths, tulips, carnations,

azaleas, etc., rest upon tier, flanked on either side by ferns and palms. The base of the large mirror was flanked with ferns and orchids, to the right and left of which stood sturdy plants of the tall *Ficus elastica*, while from the upper cornice hung suspended in graceful garlands the delicate *Asparagus tenuissimus*.

It is no disparagement to a number of other successful and highly deserving florists at the national capital to say that the Smalls, both father and sons, deserve well of their fellow craftsman for the enterprise they display and the merited success attained as successors to the well-known James Watt, President Lincoln's favorite gardener at the White House, who just twenty years ago sold to the older Small the then very limited business, which, by dint of perseverance and skill and pluck, has attained its present large and highly creditable proportions.

H.

Ventilation.

I have two houses of the same area, but of slightly different cubic contents, they are connected by a door which is always open. House No. 1 was built by a carpenter in an unusually thorough and careful manner, and is as nearly airtight as a sash house can be. No. 2 was built by myself from the remains of an old house, and is decidedly leaky.

The difference in the growth of plants (carnations), and size and quality of flowers between the two houses is very marked and altogether in favor of the leaky house. The difference between the atmospheres of the two houses is so great that visitors at once notice it. Going from house No. 1 to No. 2 is like going out of doors even with the ventilators closed. No. 2, in fact, ventilates itself.

fillers in through minute crevices which increase in number and size as the heat becomes greater, thus thoroughly ventilating the house without lifting a sash.

I have not weighed the coal burned in the two houses, but as nearly as I can estimate the leaky house has the advantage here. It seems to me that nothing can be more detrimental to plant growth



than to open sash upon a cold winter day and permit catarracts of icy air to fall upon the plants beneath.

It is certainly possible to provide for self ventilation to a certain extent. Thin glaziers' points might be used at the head of alternate rows of glass, which would prevent actual contact at the laps. Numerous small ventilators would be better than a few large ones. It is claimed as a special merit of the ordinary hot-water system of heating that the pipes retain the heat a long time. This seems to me one of the greatest defects of the system, for it is just as necessary to get the heat out of a house when you don't want it as it is to get it in when you do. Steam and hot water under pressure certainly have the advantage here.

The objection to the present system of ventilating is very apparent during the early spring months, when we have cold nights followed by days of hot sun and cool winds. With several runs of 4-inch pipe full of hot water, under the benches it is simply impossible to control the ventilation, it is easy to keep the temperature down, but that is not quite the one thing

L. W.

Polyanthuses.

Charming old-fashioned flowers! They must become popular. Many would grow them if they only could see them in bloom once. Amateurs love them; florists overlook them. They are hardly under favorable conditions, but like pansies, violets and anemones, they are best treated as cold frame plants. They come into bloom in March, are in their heyday in April, and under "cool" circumstances, last through May. I grow a goodly number of them, some for early and some for late flowers, and find them a very welcome addition to our cut-flower supply.

I raise a fresh stock every year from seed, because I find the young plants throtter, less troublesome, easier to grow

and less liable to die in summer than are old plants; but in the event of extra fine varieties as Harbinger, I retain and divide the old plants. I prefer the large-flowered and gold-laced varieties. I sow the seeds in flats in a warm greenhouse in March, prick off the seedlings, after they are well up, into other flats, and still keep these in the warm house for a week or ten days, then remove them to a cooler house and after a week put them out into a cold frame. About the end of April or first of May I transplant the seedlings into north-facing cold frames shaded from bright sunshine, or into a cool, faintly-shaded spot in the garden. There they remain till next fall, when I lift and transplant them into their winter quarters, which for early flowers is a sheltered, sunny, cold frame, and for late blooms, a north-facing one.

Young plants keep pretty clean through the summer, but old plants are often covered with red spider; that doesn't matter very much, however, as they make their growth in spring, rest somewhat in summer and don't start to grow again till fall, then if the old leaves are full of spider, we may cut them off. Don't divide the old plants when they have done blooming in spring, but do so as they are starting to grow in September.

Where out-door spring gardening is practiced, polyanthuses are much used in company with pansies, rock cress, moss pink, periwinkle, forget-me-nots, crown anemones and bulbous plants. For this purpose they are wintered in cold frames and planted out into the beds and borders on the first approach of spring. They are mostly done blooming and may be removed before the end of May, and make room for the gay paraphernalia of summer.

WM. FALCONER.



A night approaches the frost closes the winter cracks and the cold increases the larger ones, also close leaving here and there an opening larger still, which keeps the air from becoming impure, so I believe that the air of an hermetic glassed house crowded with plants will be completely poisonous morning, the air of an hermetic cold room crowded by human beings would be under the same circumstances, for there are certainly many analogies between plant growth and human growth. As the morning sun melts the frost the air



S. H. HALL, SRO.

German Floral Work.

At a recent floral exhibition held in Hamburg, Germany, the floral designs and basket of water lilies illustrated on this page were very much admired and were selected by the *Deutsche Gartner Zeitung* as representing an advanced taste in floral arrangement. We have reproduced the engravings from the exchanger above named that our readers may be familiar with the progress made in the "fatherland" of many who are now American florists.



ARD-RIGH (IRISH KING) DAFFODIL. BRIGHT GOLDEN YELLOW

ARD-RIGH (Irish King) Daffodil.

In the time of daffodils we are glad to be able, thanks to a niece of Mr. Hartland, of Cork, to present to our readers an illustration of one of the most striking and early of the daffodils, being earlier even than *pallidus praecox*. It is so beautiful, forces so well, and is so useful a variety, that we hope to be excused from the attempt to give a detailed description of a variety whose characteristics are better shown by the accompanying illustration than by any form of words. We do not suppose that the most ardent unionist will fail in loyalty to this particular Irish king. — *Gardeners' Chronicle*.

Plant Notes.

FICUS REPENS grows readily in out-of-the-way corners of the greenhouse, and the vines can be used very effectively in decorations. F.

NEW CARNATION.—We are informed by Mr. CHAS. T. STARR that he has a new seedling which has just bloomed that promises to be a "white Buttercup."

BEGONIA PRINCESS BEATRICE.—This is said by E. MOLYNEUX in the *London Garden* to be "Not only the best of its class as a bedding variety, but that it has the double merit of being a winter-flowering kind."

VERBENAS.—Mr. ALBERT M. HERT, Lancaster, Pa., sends us samples of some of his seedling verbenas. The condition in which they were received precludes any notice except that the blooms were apparently a good shade of scarlet.

BOUYARIAS.—Cuttings of young, succulent shoots, placed in sandy soil and kept close, will root in about two weeks. This method possesses an advantage over cuttings of the roots or older wood in that they will make healthy plants in less time. H.

BEGONIA GLOIRE DE SCEAUX.—This begonia continues to receive favorable comments from cultivators as to its value as a winter-flower. It is of vigorous habit and grows naturally in pyramidal form well covered with foliage. The pink blooms are produced with freedom in good sized clusters.

YELLOW ROSES.—Perhaps your readers may be glad of this information, which is taken from the "Notes and Queries" in the *Boston Transcript*. T. M. C.

11,101. The yellow rose is produced by engraving a common rose on a barberry bush. I have seen them in my childhood. D.

Now we know how it's done.

AMPELOPSIS VITICL.—I would like to inquire whether this is hardy in the latitude of Wisconsin? I planted out two vigorous specimens last October and neither of them survived, though the roots were slightly protected with a mulching of leaves. I had gathered the impression that it was perfectly hardy in this latitude. How is it? F.

GIANT PANSIES.—A subscriber at Seneca Falls, N. Y., Mr. C. H. Gleason, writes us that he has a Giant Trimardeau pansy bloom that measures ten inches in circumference and three and one-half inches across. This is of course an unusual size, but it always seemed to us that flowers of such size were unwieldy and possessed but little beauty.

ROSE THE BRIDE.—A box of eighteen blooms of this rose was shown at the meeting of the Royal Hort. society, London, March 8, and the rose was awarded a first-class certificate.

PRUNUS PISSARDI.—This plum has been forced into flower recently in England and the *Garden* states that it is probable that now it has proved so amenable to early forcing, it will become as popular for the greenhouse in early spring as it is in the open air in summer.

THE ETRURIAN ROSE.—Some blooms of this rose, cut April 1, and shipped by Mr. C. F. Evans, to London, England, reached there April 11, and the B. A. Elliott Co., of Pittsburgh, who recently purchased the entire stock of this rose, now send us a copy of a cablegram from Wm. Paul & Son, the consignees, stating that the roses were received in fine condition, per steamer *Etruria*. Two boxes were sent, one of buds and one of blooms, arriving ten days after being cut. This is probably the first time that cut roses have been successfully shipped from America to England.

CALYCANTHUS SEEDLINGS.—Several years since I bought 100 *calycanthus* seedlings, not knowing but all were equally fragrant. I retained a portion of them before they flowered, but among the balance I did not have one first-class variety. There was quite a diversity in color, and, if recollection is not at fault, the darker colors were most fragrant. As the value of this shrub is in its fragrance, I considered it an imposition upon my customers to sell those which had little or no fragrance, and dug them up and threw them on the brush heap. Doubtless it will cost a little more to raise plants from layers and offsets, and they will be worth much more than sufficient to pay the difference, and when the matter is well understood no one who values his reputation will offer any but those propagated from the very best varieties. W. F. BASSETT.

PRIMULA DENTICULATA.—A beautiful Himalayan hardy primrose, which would be widely grown if only better known. I grow it in cold frames and have four sashes filled with it; two are early and bloomed in March and early April, the other two are in a cold, shady place, and are now, middle of April, only coming into bloom. The plants are very robust, perfectly deciduous, and in winter all the leaves die off, leaving a crown like a bulb in the ground. In earliest spring, indeed soon after mid-winter, the crowns start to grow and throw up a crop of flower-scapes ten to twenty inches high, terminated by globular heads of bluish-purple flowers. The leaves and scapes are more or less covered with sulphur-colored meal. The flowers are pretty, very striking in appearance, and last exceedingly well after being cut. All who have seen them here have admired them very much and expressed a strong desire to obtain it. It is easily raised and grown from seed, and seedlings bloom when a year old. It may also be propagated by division of the crowns in fall, or from root cuttings. As a florist's plant to grow for cut flowers, it would not bear blooms enough to pay, but as an amateur's plant, I should strongly recommend it. But bear in mind, if you will enjoy it, you must grow it in quantity—that is, have a mass of it. It is an easy plant to manage, quite profuse, and long-lived. Some varieties have deeper colored flowers than others. W. F.



Roses for Winter Forcing.

The following questions were asked by a novice and the answers kindly furnished by Mr. J. N. May, with permission to send them to the *FLORIST*.

First.—Is it not best to grow roses of the tea and hybrid tea varieties, such as C. Mermet, *Perle des Jardins*, *La France*, *Wm. F. Bennett*, and *American Beauty*, but one season, where they are planted in shallow benches? Ans.—One-year plants are undoubtedly much the best.

Second.—What should be done with C. Mermet, *La France*, and *Wm. F. Bennett* that have not been heavily forced and that have not bloomed very freely? Ans.—Replant, and do it about July 1.

Third.—Regarding *Gen. Jacqueminot*, planted in benches eight to nine inches deep, having been rested by freezing, and forced for Easter for their first crop, what should be done? May they be grown another year, or should they be replanted? Ans.—These should do well a second season if heavily mulched before starting the second time.

Fourth.—*Perle des Jardins*—do these require a light or heavy soil? Ans.—They do best in a medium soil, what is known as a light loam.

Fifth.—What date will give the best results in winter to plant out young roses in benches? Ans.—From about the first to the fifteenth of July.

Sixth.—Is it not correct treatment in summer to keep young roses growing all the time, and not to dry them or rest them, but get all the growth possible before fall, when they are allowed to come into bloom; in fact, treat them the same as in winter, with the exception of fire-heat, of course, and picking off all flower buds? This in reference to tea roses. Ans.—Modify this by giving all air possible, and let them grow sturdy instead of attempting to grow them soft. The rest is all right.

Seventh.—Should *La France*, *American Beauty*, and *Papa Gontier* be treated in the same way as the teas? Ans.—Yes, certainly.

Eighth.—*Wm. F. Bennett*—I see by *THE AMERICAN FLORIST* Mr. Evans says, "do not dry them?" Ans.—Not when plants grow on steadily.

Ninth.—Young plants of *Gen. Jacqueminot* and hybrids should be rested before blooming, should they not? Old plants of the hybrid teas that have been forced, of course should be. But the question refers to young plants only. Ans.—Yes, this is quite correct.

Tenth.—Should glazes be shaded on rose houses in the summer where sashes are stationary, by white lead or whitewash? Ans.—Only very lightly for three or four weeks during time of planting, etc.

Eleventh.—Will leaf mould from the woods, on top of green soil, make a good bench for roses requiring a light soil? Ans.—No, leaf mould is poison to the rose; if soil is really too heavy, burn some with all the old rubbish on the place, and, when cool, screen and add some to the soil to make it more porous.

Twelfth.—Being short of good sod compost, is it advisable to make up benches with a layer of soil, face down, layer of manure, and compost on top? Ans.—Cut sods in very narrow strips, just enough to cover cracks, then fill bench with compost without any addition of manure, as the latter only creates fungus.

Mr. May, in a subsequent letter, says that benches should not be shallower than three inches nor deeper than five. This may make the compost heap go far enough.

It is most earnestly hoped that the above may be of as much value to some brother florist as it has been to

"THE NOVICE."

Roses on Own Roots, Versus Budded or Grafted.

Mr. E. G. Hill reviews this matter in a very straightforward way, and I am not at all surprised at his conclusions. That gentleman, with many others, has heard my views on this matter at former times, and, although somewhat differing with me in opinion at those times, he seems now to coincide very nearly, and I doubt not he will remember this instance of these remarks as it occurred at quite a recent date.

Having given this matter a great deal of thought, and experimented considerable for the past thirty years, I am convinced that for 95 per cent of the roses grown to-day, whether for adornment of the flower garden or the forcing for flowers in winter and spring, they are better on their own roots than on any stock you can find in the market to-day; always providing they are propagated and grown from good healthy plants and given the required season of rest and change of treatment suitable to their several requirements.

If budding or grafting is practiced at all, the stock and scion should be of the same family or as nearly of the same qualities in regard to time of growing, etc., as possible; perhaps the worst stock for tea roses to be found in the market to-day, if the plants are required for winter forcing, is the variety known in the trade as the *Briar*; after trying this stock in many ways for that particular purpose for the past thirty years, I have come to the conclusion that I am wrong with it. This also is applicable to hybrids for winter forcing, as they never do so well on it as they do on *Manetti* or *Griffieria*; the latter is the best of the three by a long way for tea roses especially, but for hybrid remontants for all purposes, if I had to choose between them, I should take the *Manetti*; but, if once this class of roses are fairly tried on their own roots, I think the majority of growers would not want them on any stock. To sum up this matter I really do not recommend any tub that will not stand on its own bottom. When a rose is a weak grower, and it is necessary to get it into stronger growth, if it is a tea rose, then I would bud it on some good strong growing tea stock, such as *Souvé*, *Ch. de Gaulle*, *Marshall Robert*, etc.; to demonstrate this I imported a lot of roses (tea and hybrid) last fall from several European growers, and in due season, potted them up, keeping each consignment separate, and at the same time potting up a lot of my own roses on their own roots; in every case my own plants have beaten the imported budded plants, no matter what the stock was. Many growers who have called here the past season have remarked the difference. I also saw a lot of C. Mermet, imported budded plants at Messrs. Lonsdale & Burton's place this season planted alongside others on their own roots, and I think I am safe in say-

ing that the budded plants had not produced at the time I saw them more than two-thirds as many buds as those on own roots, though placed in exactly corresponding positions, with the same care and attention; (if I am mistaken will these gentlemen please correct my statement).

For bedding purposes, where the plants are required to stand for years, I think the hardy roses are immensely superior when on their own roots, for while the plant may not be as large when just planted, yet it will soon grow into size and keep on increasing, while budded or grafted plants will in nearly every case be virtually dead in three years, and 90 per cent of such that are planted in this country every year do not live to see the third year. Why is it thus? Simply because the suckers from the bottom soon monopolize the plant. With inexperienced cultivators the result is disappointment—and when they get the proper attention it is a continual nuisance to have to look them over frequently for suckers and then in the end loose the plant, which is the case in a great many places I am familiar with. I have a letter laying before me now which will illustrate this better than anything I can think of just at this moment. The writer (a lady) says: "The two roses, *Baroness Rothschild* and *Mabel Morrison* you sent me in 1876 have grown to be very fine bushes. They were small plants on their own roots and I thought when I planted them they would never amount to much, but taking your advice, after having tried a good many budding roses before and always lost them after two or three years, I planted these two on a new piece of soil and was very agreeably surprised at their growth, and they continued to grow and bloom freely. Last season they presented a most beautiful appearance; the *Baroness* had over 100 buds and blooms on it at one time and was the admiration of every one who saw them; the *M. Morrison* was very fine, also many of the others I have since planted, all on their own roots. I do not want any others in future."

This is only one instance of many where roses are doing much better on their own roots than budded or grafted have ever done.

J. N. MAY.
Summit, N. J., April 21, 1887.

AS WE GO TO PRESS we learn of the death of the mother of Mr. Wm. J. Stewart, of Boston. The friends of Mr. Stewart—and they are many—will sincerely sympathize with him in the irreparable loss he has sustained.

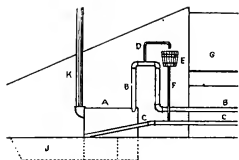
WHITE ANTS.—"Anti" can get rid of these. Dissolve kerosene—the same that is used for lamps. I pour it on the soil of the pots, also on the soil in benches on which the plants stand. Have used it on heliotropes, roses, coleus and geraniums, and it did not hurt them. The worms, bugs, etc., vacate as soon as it is used. "GENSER."

VIOLETS.—Being troubled with mildew, it occurred to me to try salt water. I put a handful of salt into a pail of water and sprinkled the plants on two successive mornings with the mixture. Result—immediate and final disappearance of the mildew; the plants commenced to make new growth, and even those that had but few leaves left started again with great vigor and were soon covered with bright green foliage. Perhaps the mildew that attacks roses would yield to the same application.

L. W.
[Salt water has been used as a cure for mildew in France, which fact was noted some time since in these columns. Ed.]

Hot Water Circulation.

In your paper of March 15, page 300, appears an article under the above heading, in which the writer asserts that the only proper method of obtaining perfect circulation in hot water pipes is to place the boiler four or five feet below the level of the greenhouse floor. Were this assertion not an error, which, if generally accepted, would give many florists much unnecessary expense and oftentimes great inconvenience we would not take the trouble to contradict the statement or



A. Boiler, B. Flow pipe, C. C. Return pipe, D. Vent pipe, E. Expansion tank, F. Supply pipe attached to return pipe, G. Greenhouse, J. Ash pit, K. Smokestack.

trespass on the columns of this paper to explain the plan of securing good circulation, when from any cause it is necessary to set the boiler above the ground line.

The annexed diagram will show the system to be employed much better than words can explain. We can refer to many florists who will testify to perfect success in heating their houses by this arrangement of pipes and boiler. After the pipes enter the greenhouse the same plan of laying them may be adopted as if the boiler was below the ground line. If the radiating pipes have a rising incline through the length of the line a vent pipe must be inserted at the highest point reached, but if the pipes have a gradual fall through flow and returns back to the boiler, no vent, stand pipe or expansion tank will be needed, save those shown near the boiler. J. D. CARMODY.

A Convenient Sliding Ventilator.

The sliding ventilator has an advantage over one which is lifted from the fact that it is not so liable to catch the wind; lifting a ventilator from the upper instead of the lower end obviates this defect of lifting ventilators to a considerable extent, but not entirely. Mr. A. T. Jackson, of Bowmanville, near Chicago, after trying various styles of ventilating, has adopted the sliding ventilator, of which a sketch is shown on this page, as the best suited to the purpose. The drawing plainly shows the principle upon which it works. The great difficulty with a sliding ventilator has usually been from their sticking in the frame by the swelling of the wooden sash when wet; this, Mr. Jackson has overcome, by beveling the edge of both sash and frame to correspond, so that when the sash swells it may lift the sash a trifle, but still make a tight joint and can always be started unless frozen down, and Mr. J. states that when it is cold enough to freeze down the ventilators on a warm house, he does not believe in ventilating. The manner in which sash sets in the frame is shown in the corner of illustration.

Spring Show of the New Jersey Horticultural Society.

This show, held at Brickchurch, Orange, N. J., April 19, 20 and 21, was a great success, the large quantities of choice plants and flowers were very nicely arranged for effect, the hall—the same in which the chrysanthemum show was held last November—being well adapted in every way for a fine exhibition.

Directly in front of the entrance was a nice bed, about twelve feet in diameter, well arranged. Alternantheras, coleus, etc., formed the outer margin, the center being filled up with a fine lot of plants, comprising ferns, Agaves, dracaenas, liliiums in bloom, hydrangeas, palms, marantas, begonias, etc., making a very fine effect; this was justly awarded the first premium. Mr. Richard Purdue was the exhibitor.

Next in order was a fine bank of geraniums which received first prize; it was exhibited by Carl Schaefer, gardener to Samuel Colgate, Esq. Following was a fine collection of cinerarias; those from Mr. Barr were very fine. A raised bank of mixed plants under the music stand was admirably arranged by Mr. H. J. McGall. Near these was a very fine circular bed of liliium longiflorum from Clegg & Colclough. Another very good feature was some excellent specimens of paonias of quite a new type from Jas. R. Pitcher, Esq.

At the extreme end of the hall was a very fine collection of plants from Henry Graves, Esq.; Mr. M. Doyle, gardener to Mr. J. Terry, Esq., also exhibited a fine lot of plants and a collection of double petunias attracted much attention; they were from Mr. J. D. Kearns, gardener to Samuel Lord, Jr. The center table contained very fine collections of orchids and other plants, staged by Mr. M. Boyle, gardener to H. Graves, Mr. R. Brett, gardener to Jas. R. Pitcher, Esq., and Mr. Farrell, gardener to Mr. Wm. Barr. Cut roses were very fine; the principal prize-takers were Mr. Geo. Gates, gardener to W. H. De Forest, and Thos. J. Slaughter, Esq. J. N. May also exhibited a nice lot not for competition. At the time of sending this report a full list of the premiums was not ready.

M.

Spring Show of the Penna. Hort. Society at Philadelphia.

The spring show, which opened April 20, has been a most successful one. Entering the hall, the first object to catch the eye was a towering fan palm in the center of the room, flanked by a pyramidal azalea, one white, one red, on either side, and each about twenty feet in circumference.

The palm was in Alburger & Brothers' exhibit; the azaleas were in the collection of Clarence H. Clarke, whose gardener, John Shaw, took first premiums in five different classifications of these fragile but showy flowers, as well as for roses in pots and for six rhododendrons, the only ones in the show.

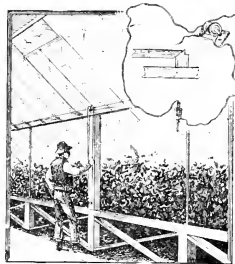
There were not as many tropical plants on exhibition as the fall show usually brings out, but the Fergusons had a table full of beautiful palms, crotons, etc., near the door. Alburgers completely screened the stage with a hedge of arecas and searfishias. The hall, however, did not lack for blooming plants. Just inside the door, Geo. W. Childs' gardener, John M. Hughes, had a jardiniere and Chinese large pots of spring flowers and Chinese primroses, and he had loaded one whole

table with a collection of hyacinths, which filled all that part of the room with fragrance. E. W. Codrigh, August Lutz, David Emory, gardener to Charles Dissel, and Gebhard Huster, gardener to Mrs. J. C. Heyl, all took premiums on collections of plants in bloom and ornamental foliage plants. C. F. Evans had a fine plant of the rose, "Her Majesty."

E. Banyard & Son took a special premium for carnations in pots. August Lutz, George Anderson and Chester Davis, gardener to W. P. Henszey, contended for prizes in hydrangeas, and all were rewarded. W. K. Harris and F. R. Sykes took premiums for English primroses, and the latter took several special prizes for anemones, polyanthus, imantophyllums and Rhynchospermum jasminoides.

There were not many orchids in the show, but the few that were present were fine ones. Most of them were shown by J. W. Mertz, gardener to Edmund Smith. Of course, Mr. Mertz took a satisfactory premium. William Joyce, the Baldwin gardener, and D. Ferguson & Sons took premiums for orchids.

The foyer was not used on this occasion, but a beautiful collection of roses and pansies was arranged on tables in front of the stage. John N. May, of Summit, N. J., took premiums for Bride, American Beauty, Bon Silene and hybrid roses, showing some magnificent specimens. John Henderson of Flushing, N. Y., carried off a prize with a grand bouquet of the rose, "Papa Gontier." Chas. F. Evans, Craig & Bro., Lonsdale & Burton, W. W. Coles and Pennock Bros. all had exhibits of fine roses, and took premiums in various classes. Thos.



Foulds, gardener to Wm. M. Singlerly, took a prize for a collection of cut flowers, Lonsdale & Burton one for pansies, and W. J. Chinnick, of Trenton, one for seedling carnations.

The floral designs were few but handsome. The most conspicuous was a large "pocket" of roses and Easter lilies made by William N. Crawford. William Sutherland took first premium for a table design and second for six corsage bouquets. Heron & Nisbet taking the first. Pennock Bros. and Heron & Nisbet took premiums for plateaus of flowers, John M. Hughes for a jardiniere of spring bulbs and Miss Annie Bisset for a lovely little cross of lilies and Bride roses. H. C. Scheffer had a "cray patch" of pansies, which attracted much attention, but was not entered for competition.

Ornate Out-Flower Orade.

May Fashions in Flowers.

BY OUR NEW YORK CORRESPONDENT.

No feature in spring styles is more marked than that of the using of flowers of one color, with its different shadings, in arrangements of all kinds. Now and then a blaze of yellow will be introduced among the pink and red effects, but as a rule, rooms are each one dressed with bloom of one color in relief from rich foliage.

The wreath, so fashionable for funerals, gifts, and wall ornamentation, appears on the table. Six dinners given to prominent people lately have been decorated as follows: Three silver dishes containing each fifty Gloire de Paris roses are placed in the centre and at the ends of the board. The centre dish is surmounted with a wreath of seventy-two roses and their own foliage of the same variety. It is finished at the cover of the hostess by a wide sash of pink ribbon tied in a large bow.

Thorley made a charming arrangement for an Easter dinner at the Roosevelts. The center of the table was covered with a mat of white silk plush; on this stood an oval of superb magnonette, which was fringed with pink hybrid roses. There were end pieces of roses and magnonette. A luncheon table decorated by the same florist, had a four pointed star in the centre, bedded softly with selected Jacqueminot roses. A vine of rose foliage was placed outside the star which was fringed with begonia bloom. There were handled baskets containing roses at each cover and loose roses laid throughout the table.

The novelty in table covers is silk crepe, with a wide fringe. On this azaleas, rhododendrons, and paper white narcissus look beautiful, as do lilies of all kinds. White decorations for the bridal collations have come in with Easter. All the shades of white flowers are combined, such as orchids, camellias, gardenias, freesia, spirea, Hydrangeas and azaleas. The table cover used is crepe.

It is fashionable to divide the flowers displayed at dinners given in places away from home, and to have them packed and sent home to the houses of the guests after the feast. A splendid show of roses was made at a dinner given at the Hoffman House to gentlemen last week. The flowers were in brown pottery vases, which stood before the cover of each guest. These with their contents were sent home by the host to each friend's wife.

Two florists have introduced the style of making floral pictures on mantels. In room embellishment the mantel-piece is now where the finest effect is made. In modern houses where there is a Queen Anne mantel of wood there is a fine opportunity to decorate. At the wedding of a millionaire's daughter, April 21, the house was ornamented in a tasteful style by Mr. Hamilton, who bedded with lycopodium the mantel up to the mirror line. In this moss was plunged plants of ornamental begonia, the B. metallica, B. Louis Chretien, and B. Rex, standing out elegantly. The moss was worked up to a pyramid in the centre of the glass where a specimen Adiantum lilies of the valley was planted and this was surmounted by two spikes of gladioli. On one corner of the mantel stood a rare vase in which were long-stem roses and branching lilies; on the other side was a low mound of Asparagus plumosa from which vines were drawn up to curtain one side of the mirror. The entire framework of the mantel was frescoed with asparagus vine.

In the fire-place was a massing of Cottage Maid tulips. All the doors and archings in the drawing-rooms besides mirrors and chandeliers had a tracery of asparagus.

A square canopy covered the end of the apartment where the bridal party received. This was made of asparagus and in each corner was a loose bunch of Jacqueminot and Mermet roses. Inside, the canopy was fringed with trusses of pink and lime hydrangea. The back-ground was a wide panel which asparagus completely covered and was drawn up in four divisions to the center where a true-lover's knot finished. Palms filled out to the sides of the apartment.

The "canopy bell" is the newest wedding design, an invention of Paul Heers. The bell is of graceful shape, having nine ribs running to the top. These are covered with longiflorum lilies, the space between the ribs being filled with asparagus. The bell is fringed with a festooning of asparagus and pink roses. On the mantel was worked out a picture of a rose garden, splendid effects being shown on a moss bedding of roses and rose foliage, the latter being carried up to the ceiling.

Wedding bouquets grow larger and are made half of a fringing flower. Gardenias and white lilies is a favorite combination; orange buds bedded down with lily of the valley or *Cedroline cristata* fringing over. Gardenias, Narcissus poeticus, orange flowers, and white lilies are the most popular blossoms for weddings. The bride's gown is trimmed elaborately with these, in panels and skirt bands. A very natty idea was a basque of violets worn by a young bride at a morning church wedding. She was seen in a traveling gown of pale lavender cashmere and silk combination. The basque was fitted perfectly of net, and covered with Neapolitan violets the same morning picked—the wedding morning. "Many hands made quick work." The basque was sleeveless and a lovely piece of floral work.

Brass jardinières containing lily of the valley, the bulbs planted under moss, are all the rage for souvenirs. Beautiful ivy designs have been introduced for gifts. Growing plants of ivy trained into crosses, wreaths, and to cover tripods and work tables, are given for engagement tokens, these designs are stood in windows, and are very ornamental. Plants are introduced into most of the expensive baskets. The fish basket holds its own, but is really very expensive if of good size, richly trimmed, and handsomely filled. Small fish baskets all contain a dwarf plant besides flowers in one side. A corn of begonia, intailed with a cluster of tulips or daffodils, the color of the trimming on the handle matching the bloom.

Funeral decorations are growing more elaborate. For the funeral of an infant last week a satin pall covered with daisies was made. The little casket stood on a mound of white roses which was built upon a rug of white violets, fringed with white lilies. Of course the rug was trampled by those who went to look at the dead baby. Another elegant arrangement was a bank of lilies and palms placed before the pier glass. In front of this stood the coffin, over which was thrown a pall of asparagus vine, caught up with a cluster of lilies and two leaves of *Cypris revoluta*; wreaths of lilies were hung on the wall. At a funeral last week several large palm leaf fans were laid on the mantels, piano, and tables. Each one had a cluster of violets and white

ribbon tied on it. The rooms were much crowded and fans were acceptable. Golden crowns are much liked for funeral devices, and harps of gold. Tulips and genets are used in making these; gold cord is used for harp strings.

For golden wedding bells of yellow blossoms, such as *calendula* are ordered. For silver weddings, bells of the Imperial silver tree leaf are liked. They are elegant, but costly. Gray statice is used for the tongue and cords. A leaf of this kind is inscribed with the name of each guest and is given at the collation or with the box of cake. It is a pretty token.

New York Retail Prices.

Roses, a dozen, Perles, Niphetos and Souv. d' un Ami \$1; Cooks and La France, \$2.50; Mermet, Bennetts, and Jacques, \$2; Bon Silence, 75 cents; Baroness and other hybrids, 50; carnations, 50 cents; lily valley, 75 cents; tulips and violets, \$1; lilac, \$2 a bunch.

KEEPING CUT FLOWERS.—There is such a thing as sprinkling cut roses in trays too freely, which fact does not seem to be understood by some. The foliage should not be allowed to ever become quite dry, but too frequent sprinkling hastens the decay of the flower and gives the buds a washy appearance which detracts considerably from their value. G.

THE PERITAN ROSE.—We note in the *Gardener's Chronicle* of April 16 that Messrs. W. Paul & Son received a first-class certificate for a rose from the cut blooms shipped from New York April 2 and exhibited by the consignees at the meeting of the Royal Hort. society April 12. The *Chronicle* says: "The flowers were so fresh and fragrant after their long journey, that all sorts of possibilities arise." This certainly speaks well for the staying qualities of the cut blooms.

Hot Water Circulation.

Seeing the article of W. S., of Buffalo (page 300), on hot water circulation, and as I differ with his experience in having pipes on level or below boiler, I give mine. I could not get my boiler down, and tried the following: I use saddle boiler, heating two houses; use 700 feet pipe in one, 250 feet in the other. The flow pipe rises directly four feet, then drops below top of boiler where it enters the house. The pipes decline all the way around house and are five inches below boiler before entering it. I use 1-inch pipe. Circulation is quick and there is no cracking or noise in imperfect piping. I have a coil that has worked well the past two winters, twenty-six inches of 1-inch pipe are put in centre of self-feeding stove and heats fifty feet 1-inch pipe thoroughly. The radiating pipes are more than a foot below the coil; are in plant house joining shop where stove is and do not interfere with heat in the shop. Give the water a chance to rise directly above boiler four or five feet and the circulation will be quick, if the pipes go down cellar before returning.

Johnstown, N. Y.

F. K. A.

[It is a common practice to carry return pipes below the boiler in piping dwellings, a sufficient vertical rise of flow pipe insures good circulation. The drawing upon page 142, Vol. 1 of *FLORIST*, will give the idea, if you suppose the return to be dropped below the boiler any distance which does not exceed the vertical rise. —Ed.]

THE AMERICAN FLORIST

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The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
flowers, pertaining to those lines ONLY. Please to
remember it.75¢ Advertisements for May 5th issue must
REACH US by noon May 3. Address.

THE AMERICAN FLORIST CO., Chicago.

THE Summit county, Ohio, horticultural society send reports of their meetings in January, February and March. M. Crawford, Cuyahoga Falls, is secretary.

THE REPORT for 1886 of the Fruit Growers' association, of Ontario, has been received. It contains 65 pages of information which should be valuable to all growers of fruit.

FROM Mr. W. S. Devo, secretary, comes the report of the Columbus, (O.) horticultural society for March. The issuance of the report in monthly parts must greatly enhance its value to those who are unable to attend the meetings.

THE BEAUTIFUL catalogue of the B. A. Elliott Co., Pittsburgh, has been received. It is as artistically gotten up as usual, no expense having apparently been spared in its production; it being at the same time free from the stiffly gorgeous cuts and descriptions unfortunately so common in many horticultural catalogues of the present day. The beautiful effects that may be produced by a judicious use of hardy plants is well set forth in the first half of the catalogue.

Catalogues Received.

Braun & Satterthwaite, Denver, Col., plants; B. A. Elliott Co., Pittsburgh, plants; M. Ball, Vinuipig, Minn., plants; M. M. Bayersdorfer & Co., Philadelphia, baskets and florists' supplies; John Carwen Jr., Villa Nova, Pa., plants; J. H. Wade & Co., Evansville, Ind., plants; Mrs. J. O. St. Clair, Fort Worth, Texas, plants; H. A. Dreer, Philadelphia, seeds and plants; L. Menand & Sons, Albany, N. Y., plants; Schultheis Brothers, Steinfurth, Germany, roses.

ILL.—If persons who have signified their intention of insuring their glass against hail come into the F. H. A., the organization will be a success from its inception. Gov. Green, of New Jersey, signed the amendment to the insurance law March 3, and the bill became a law. The Florists' Hall association of America will be organized in the state of New Jersey as soon as the requirements of the act can be complied with. Those who wish a copy of the constitution and by-laws can secure them by addressing John G. Esler, secretary of the Florists' Hall association, at Saddle River, N. J.

**JOHN KEYES,
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Near Broadway, NEW YORK.Consignee of the principal growers about New York.
Lilies of the Valley and Lilacs at all times.**Wholesale Markets.****Cut Flowers.**

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Roses, Teas	2.00
" Perles, Niphotos, etc.	1.00 to 5.00
" Mermets, LaFrance	5.00 to 10.00
" Jacques	12.00 to 15.00
Lily valley, Talpis	1.00
Narcissus, poitions	4.00
Carandians	1.50
Candians	4.00
Shells	1.00
Talpis	10.00
Mugonette	1.00
Phosies, violets	.50
Adiantums	1.50
Heath	2.00

	NEW YORK, April 25
Roses, Perles, Niphotos, Sonys	4.00
" Mermets	8.00
" Benetts	4.00
" Cooks	10.00
" LaFrance	10.00
" Bon Silones	100 to 200
Carandians, long stems	5.00
" short stems	1.50
Lily of the valley, Mugonette	4.00
Talpis	5.00
Violets	50 to 1.00

	CHICAGO, April 25
Roses, Perles, Niphotos	4.00
" Teas	8.00
" Mermets	12.00
" Jacques	15.00
Carandians	1.00
" Cooks	5.00
Lily valley	10.00
Candians	5.00
Shells	30.00

	PHILADELPHIA, April 25
Roses, Teas	3.00
" Niphotos, etc.	3.00
" Mermets	5.00
" Cooks	6.00
" Nels, Cooks	10.00
" La France Benetts	8.00
Jacques	10.00 to 12.00
Carandians	1.50
Bouvardia	1.00
Roman hyacinths, valley	5.00
Shells	25.00
Callas	10.00

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at buyer's risk. We have a fine stock of Boston
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Code when ordering by telegraph. For prices, etc.,
Address,

J. L. DILLON, BLOOMSBURG, PA.

Seed Trade.

THE SEED TRADE ASSOCIATION. John Forster, President, F. E. McAllister and W. Alice Burpee, vice-presidents, Albert McCullough, Cincinnati, secretary and treasurer. The fifth annual meeting will be held at Philadelphia June 14, 1887.

THE FIRM of Z. De Forest Ely & Co., Philadelphia, has dissolved. Mr. Z. De Forest Ely will continue the business, having purchased the interest of Mr. Roberts Stevenson.

Mr. W. Alice Burpee, of Philadelphia, and Mr. James Reid, of New York, start soon for California.

THE FIRM of S. Y. Haines & Co., at Philadelphia, have made an assignment.

GLADIOLUS.

SAVED VARIETIES, well assorted, in 15 or 20 distinct sorts, selected from a grand collection of over 200 varieties, \$2.00 per 100, \$20.00 per 1,000.
MIXED GLADIOLI, all colors, \$2.00 per 100, \$15.00 per 1,000. Mixed seedlings and delicate light shades, a very fine strain, \$3.00 per 100, \$20.00 per 1,000. Send for descriptive list.

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New Begonia Semperflorens
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\$2.50 per doz., \$15.00 per 100; 5 plants for \$1.00 by mail.

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Large stock, strong, at \$2.00 per 100.

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3 1/2 inch pots, \$2.50 per 100.

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2 to 3 feet	1 doz.	100.
Bulbous, pot plants, fine assorted	100	\$20.00
Tuberous, Pearl and common, etc.	100	2.00
Monthly roses, 6 to 10 inches	\$7.50 per 100, \$20 per 1,000	
Moss Roses, strong, 2 1/2 in. fine plants	1 doz.	10.00
Climbing Roses, strong, 2 1/2 in. in variety	100	3.00
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All kinds of bulbs, greenhouse bedding, fruit and ornamental plants, at lowest rates. Correspondence solicited. F. A. B. & J. E. R. Bloomington, Ill.
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Smilax, fresh	oz.	lb.
Large flowered, single dahlia, choice mix.	\$.30	\$2.00
Stocks, Hardy S. Porpet, pure white.	.25	2.00
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"A vigorous grower with stiff, erect wood, thick, handsome foliage, and very free flowering. Flowers well carried on long, stiff stems; large, full and of the most perfect form; petals round, broad and very thick. Outside petals pale yellow, center rich golden yellow; edge of petals lightly laced with bright rose. Most distinct and handsome; a pure Tea. Received First Class Certificate of the Royal Horticultural Society, London, June 23, 1885."

A beautiful colored lithograph for 25 cents, which amount purchasers may deduct from their first bill.

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Strong Grafts from 4-inch Pots.

No. of Plants	Price.	No. of Plants	Price.
1 - - - - -	\$ 2 00	50 - - - - -	\$ 55 00
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25 - - - - -	30 00	1000 - - - - -	860 00

This is not a Hybrid Tea, but a Pure Tea.

Mr. Bennett states that this is the finest Rose he has yet raised, and UNSURPASSED AS A WINTER BLOOMER.

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Gladioli, choice mixed, all colors,	\$12.00	\$1.50
large bulbs	8.00	1.00
Gladioli, scarlet, large bulbs	10.00	1.25
" shades of scarlet and crimson	10.00	1.25
" pink and variegated, large bulbs	15.00	1.75
" white and light, large bulbs	20.00	2.50
" yellow yellow grounds, large bulbs	25.00	3.00
Hyacinthus Candidus, large bulbs	25.00	3.00
Pearl Tuberoses, large bulbs	12.00	1.50
L. Auratum, large bulbs	5.00	0.60

*** BULBS. *****RICHARDIA ALBA****MACULATA.**Dry Roots, Extra Strong, se-
lect, \$2.00 per 100.
Dry Roots, Extra Strong,
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Good Flowering Roots, \$ 40
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Dwarf Pearl, Double Italian

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We offer a first-class lot of the above sorts war-
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at \$2.00 per 100, \$20.00 per 1,000, in lots of 500 and
over at \$9.00 per 1,000, second size bulbs (50 to 55 per
cent will bloom first year) at \$1.00 per 100, \$8.00 per
1,000. Offers and smaller bulbs suitable for growing
large bulbs for another season's sales of the follow-
ing varieties: Dwarf Pearl, Double Italian, Diamond
Pearl and Early Single Orange flowered, all war-
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small bulbs 20 cts. per 100, \$2.00 per 1,000. Smaller
size offsets 25 cts. per 100, \$2.50 per 1,000. Special low
rates on 25, 50 and 100,000 lots, offering a rare chance
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single flowered variegated tulips, Narcissus, first-
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per 1,000. ADVISE.

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CHRYSANTHEMUMS In Great Variety.**GERANIUMS** Double and Single, very best kinds.**HELIOTROPES** 6 Fine Kinds.**FUCHSIAS** 10 Best Old Kinds.**FUCHSIAS** 8 Best New Kinds.**Begonia Metallica. Abutilon Thompsonii Plena.**Write us if you want any of the above, as all the plants are strong, in fine condi-
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Flower Seeds from Paris and Erfurt.A large stock of Pearl Tuberos extra size and
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Esculentum, large bulbs, Clematis, and a full line
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Seeds For the Florist **Requisites** Such as Backs, Im- **Bulbs** For the Green-
Market, Garden- house or Gar-
er and Farmer. portables, Grasses,
Flowers, etc.22 Dey Street. — — — **NEW YORK.****J. J. Van Loghem,**

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[ESTABLISHED 1852.]

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BULBS.If desiring really first-
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List.
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Such as

Hyacinths, Tulips, Crocuses, Narcissus, Lilliums, Lily of
the Valley, Anemones, Ranunculus, Gladioli, Etc., Etc.References about quality etc., to several United States Florists
and Seedsmen.**Send for Wholesale Catalogue.****LISSE, NEAR HAARLEM, HOLLAND.****WHOLESALE ONLY.****NO AGENTS.****Bulbs! Bulbous Roots!****DUTCH BULBS.****HULSBOSCH BROS.,**

Overveen, near Haarlem, Holland

The only growers of whose firm there resides a
member in the States.Price list free on application. Address
P. O. Box 3118, New York City.
Hyacinths, fine mixed, per 100, \$3.00.
Tulips, fine mixed, per 100, \$1.00.**E. KRUIFF,** Sassenheim, near Haar-
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Wholesale grower of Hyacinths, Tulips, Crocus,
Narcissus, Lilies, Squills, Lily of the Valley, etc.
Catalogues free on application. Lowest prices and
finest quality.

Cincinnati.

A surprise bouquet made up by Gardner last week was a great bunch of Marechal Niel and Niphetos roses, enclosed in cabbage leaves, and when presented it looked like a mammoth cabbage.

One of the fads of Easter week carried out by young men was the presentation of calla lilies, in pots, to their best girls.

It is the fashion here for dry goods houses, milliners and other large concerns who make spring openings a feature, to present each lady in attendance with a souvenir corsage bunch of flowers.

One of the prettiest of local church decorations on Easter Sunday was a rising sun of immortelles; the colors red, yellow, green and white, blending harmoniously, loomed up back of the altar. Just below Old Sol's counterfeit presentment was a lovely cross of white lilies.

At a recent progressive hearts party the center table was decorated with a great heart made up of crimson roses. A beautiful Easter cross of mixed flowers was eight feet high and composed of sixteen blocks. It was built by a many Sunday school scholars, who laid a floral block in position at the conclusion of a scriptural recital.

W. S. McKinney, of the Cincinnati Floral Co., exhibited a Niphetos rose of marvelous size to wondering friends and florists recently. It was grown at John R. Davey's greenhouses, at College Hill, and was seven inches in diameter, being over three times as large as the average fall-blown Niphetos. It was the largest white rose ever seen in this city.

Owls made of violets and looking down wisely from twigs upon velvet panels, were among the designs of Easter week. The Floral company sold all they could make. A bunch of loose roses was placed at both top and bottom.

REN MCLFORD, JR.

N. F. MCCARTHY & CO., begin their auction sales of plants at Boston April 27, to continue to June 11. The sales occur every Wednesday and Saturday during that period.

FOR THE TRADE.

Hermann roses, per 100	\$1.00
C. Mermel, " " 100	3.00
Coleus, in variety	2.00
Centaurus Gynodio, Golden Feather	2.00
Swallow White clematis	2.00
Chrysanthemum	2.00
Smilax	1.50
King of Carmel carnation	2.00
Pres. Garfield and Botany	2.00

A general collection of bedding plants.
Geo. Thompson & Sons,
LOUISVILLE, KY.

Surplus Stock.

Geraniums, Zonal, in variety, 3 1/2 cts.
Fuchsias, in variety, 3 cts.
Double Fringed Petunias, (Dreer's), 4 cts.
The above good, strong plants in 2 1/2-inch pots, ready for shipping.
AMPELOPSIS VEITCHII VINES
From 1 1/2 to 2 ft. 3 cents.
CARNATIONS in variety, 3 cents.

Address,
THOS. A. MCBETH,
Springfield, Ohio.

10,000

Anna Webb Carnation Plants.

For sale \$2.00 per 100, \$25.00 per 1,000. Not less than five hundred at thousand rates. White is the best carnation grown for market purposes.

T. DONOVAN & CO.,
NATICK, MASS.

First-class Stock for present Sales or Planting

W. F. BENNETT,

Grown from blooming wood and in vigorous growth.
2 1/2 inch pots.....\$1.00 per dozen, \$7.00 per 100
3 1/2 inch ".....1.50 " " 10.00 100
4 inch ".....3.00 " " 20.00 100

BRIDE, (THE WHITE MERMET),

The best White Rose for Florists out.
2 1/2 inch pots.....\$1.00 per dozen, \$5.00 per 100
3 1/2 inch ".....1.25 " " 8.00 100
4 inch ".....1.50 " " 10.00 100

We have no stock for Florists use either for Summer planting or Spring sales of all the roses usually grown.

A large lot of

NAMED DAHLIAS, Large Roots, which we offer at very low rates.

Send order wholesale list, we are offering
GOOD STOCK AT LOW PRICES.

B. P. CRITCHELL & CO.,

197 W. 4th St., CINCINNATI, O.

A Grand Opportunity

For a first-class Florist with a little money.

Address,
A. E. GARRISON, 1226 Oak St., WICHITA, KANS.
Mention American Florist.

FOR SALE OR RENT

AT CLAYMONT, DEL.

On the P. W. & B. R. R. (1 1/2 miles below Philadelphia) 5 greenhouses and small cottage.

Apply for particulars to

ARTHUR M. BURTON,
304 Walnut-st., Phila.

30,000 Rooted Carnation CUTTINGS.

Duke of Orange, Peter Henderson, Snowdon, Lady Emma, Chester Frail, Brussels, Century, Grace Wilder, Buttercup, and number of other varieties from \$2.00 to \$4.00 per 100. Send for catalogue.

ISAAC LARKIN,

Toughkenamon, Chester Co., Pa.

BOUARDIA PRES. CLEVELAND.

Color, dazzling crimson scarlet, very large trusses and flowers; a free bloomer. No grower should be without it.

BOUARDIA BOCKEL.

A beautiful rosy pink of a dwarf habit and very free bloomer. Plants ready April 15, at \$2.00 per 100.

The best GERANIUMS in the Boston market are GEN. W. S. HANCOCK, crimson scarlet double; H. W. LONGFELLOW, crimson scarlet double. The above are very fine seedlings. Price, \$2.00 per 100. Also:

FOUR NEW GERANIUMS.

MRS. CLEVELAND, rose salmon.
BRILLIANT, a brilliant scarlet, very large trusses and flowers.
WM. A. BOCK, salmon, shaded yellow; the above three are single.

MARY E. BOCK, a very light pink, shading to white on the outer petals; double.
They are all very fine seedlings, price \$1 for the set. The above have all received the First-class Certificate of Merit. Address,

WM. A. BOCK, North Cambridge, Mass.

GERANIUM,

Mrs. Parker,

Strong plants, in 2 1/2-in. pots, per 100.....\$6.00

IVY LEAF GERANIUM,

6 varieties, 2 1/2-in. pots, per 100.....\$4.00

1,000 VINCA MAJOR VAR.,

2 1/2-in. pots, per 100.....\$4.00

3 1/2-in. " " 100.....\$6.00

Echeveria Secunda Glauca, per 100.....\$3.00

Address,

Brenneman & Petterson,

HARRISBURG, PA.

Verbenas, Pansies, Coleus.

VERBENAS, from pots, fine plants, \$3.00 per 100

COLEUS, " " " " 25 " 100

PANSIES, " " " " 3.00 " 100

Wm. Desmond,

KEWANEE, Henry Co., ILL.

VERBENAS.

STRONG HEALTHY STOCK FROM 3-IN. POTS.

Mammoth set.....\$4.00 per 100, \$30.00 per 1,000

Ampelopsis Veitchii strong, 3-in. pots, \$6.00 per 100

Centaurus \$1.00 and 50 per 100. Coleus, fine collection.

2 1/2-in. pots, \$4.00 per 100.

Geraniums, old and set, 3-in. pots, \$1 per 100

Bronze \$5.00 and silver \$6.00 per 100, Pansies \$1 per 100

Smilax, from boxes, \$5.00 per 1,000, \$2.00 per 100

Tuberose, old, Pearl, \$3.00 and common \$2.50 per 100

Trade list of greenhouse stock on application.

I. C. WOOD & BRO.,

FISHKILL, N. Y.

Verbenas and Pansies

VERBENAS, fine, from pots,.....\$2.50 per 100

PANSIES, " " " " 3.00 " 100

PANSIES, fine strain, " " " " 10.00 " 1,000

WM. DESMOND,

KEWANEE, Henry Co., ILL.

Mention American Florist.

100,000 VERBENAS

The choicest old and new varieties at \$2.50 per 100, \$25.00 per 1,000. Rooted cuttings, \$1.00 per 100, \$8.00 per 1,000. NO RUST OR MILDEW. Packed light, and satisfaction guaranteed.

J. L. DILLON, BLOOMSBURG, PA.

FOR SALE.

25,000 Azalea Indica,

15,000 Camellias.

Orders for fall delivery now booked. For descriptive catalogue address,

C. H. JOOSTEN,

Importer of Plants, Bulbs & Seeds,

3 COENTIES SLIP, N. Y.

YOUNG & ELLIOTT,

Seedsmen and Horticultural Auctioneers.

54 & 56 DEY ST., NEW YORK.

SPECIAL NOTICE!

Our annual Spring sales of plants have commenced and will be held on Tuesdays and Fridays of each week until further notice.

Catalogues are issued three days previous to day of sale and will be regularly mailed to any one desiring them.

Customers who can not conveniently attend the sales may send orders to purchase, naming a limit beyond which they do not wish us to bid.

WM. ELLIOTT, AUCTIONEER.



HOUSE OF PURITAN ROSES.

The above is a fair representation of the House as it has appeared continuously, from October last until the present time.

The above engraving, made from a photograph of one of Mr. Evans' houses, taken March 1, 1887. This large photograph, 10x15 inches, nicely mounted, will be sent post-paid, on receipt of 25 cents. We can also supply photographs of the same house taken November 20, 1886, at the same price or the pair for 50 cents.

We have decided to sell the stock of the

PURITAN ROSE

Without restrictions. Prices, same as announced by Mr. Evans, will be sent on application. We will commence shipping on the 1st of May, and all orders will be filled as rapidly as consistent with careful packing.

The stock of plants is as fine as ever sent out, strong, healthy, and well established.

ALL ORDERS FILLED STRICTLY IN ROTATION AS RECEIVED.

We have the largest and finest stock of AMERICAN BEAUTY in the country, and are prepared to quote special prices on it. Also a fine healthy stock of PAPA GONTIER and THE BRIDE.

B. A. ELLIOTT CO.,

54 SIXTH STREET,

PITTSBURGH, PA.

THE PRESIDENT'S wife is reported by the daily press to have a great love for flowers. At Oak View, where the president and his wife are now in summer quarters, she takes much interest in the arrangement of the grounds around the house, and in superintending the gardeners in planting tulips and crocuses and getting the flower beds ready for the summer growth of flowering and foliage plants.

GERANIUM GEN. SHERIDAN.—This variety is considered by far the best single scarlet for bedding, by Mr. J. T. Anthony, a Chicago florist. He states that with him it grows very stocky and in perfect shape without being pinched and is every way more satisfactory as a bedder than any other variety. His customers who have once had a bed of these geraniums cannot be prevailed upon to afterward accept any other variety.

SHADING.—Permanent shading should not be put on the glass too early. It is best put on a little at a time as the season advances. For the first shading a very light sprinkling applied with the syringe should be scattered well over the glass, which will temper the sun's rays sufficiently. As the sun grows stronger, another sprinkling may be given. The habit of plastering on a thick shading with the brush at this season is a pernicious practice which is unfortunately common with many small florists. The young stock now in the houses requires all the sun it can stand without burning the foliage, and this latter can be better avoided by liberal ventilation for some time yet.

G.

PAPER SEED BAGS

For Flower and Vegetable Seeds,
CLARK BROTHERS, Manufacturers, 61 Ann St. N. Y.

Compagnie Continentale
D'Horticulture,

Formerly Firm of J. LINDEN.
GHEENT, BELGIUM.

Public Sale of Plants

MAY 16, 1887,

And following days.

LARGE VARIETY

Of specimens of

* RARE + PLANTS *

In extra fine condition; also Market plants, coming especially.

A Large Collection of Palms

Fine specimens which have been awarded prizes and are unequalled in Europe.

100,000 AZALEAS OF ALL SIZES.

Orchids, rare novelties, Amaranths, small palms, specimen decorative foliage plants, Camellias, Ficus, Begonias, Nepenthes, Aroids, specimen or small plants.

COLOSSAL TREE FERNS,

Also an endless variety of plants for the winter conservatory and useful plants for Botanic gardens. Specimen plants for the lawn during summer. The complete collection of plant novelties which have almost all received premiums at the large exhibitions of the last two years, etc., etc., which will be sold.

May 16, and days following.

SALE, every day from 9 a.m. to noon, and from 2 p.m. to 6 p.m., at the establishment

52 RUE DU CHAUME AND
56 COUPURE,
GHEENT, BELGIUM.

Amateurs, horticulturalists and directors of Botanic gardens will find this an unequalled chance to complete collections of choice plants by the purchase of those which have made the universal reputation of this establishment. Catalogues giving details of each day's sale, can be had May 1.

NEW CARNATIONS, PANSIES, ASTERS,

of extra quality for Florists, are our Specialties send for descriptive price list to

DENYS ZIRNGEBEL,

NEEDHAM, MASS.

EVERY NURSERYMAN

Should have our

New Trade Directory

PRICE

ONLY ONE DOLLAR.

AMERICAN FLORIST CO. CHICAGO.

INDESTRUCTABLE BENCHES

Can be made by using

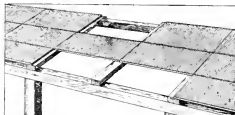
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THEY ARE AS

Cheap as Wood

—AND—

Every way Better



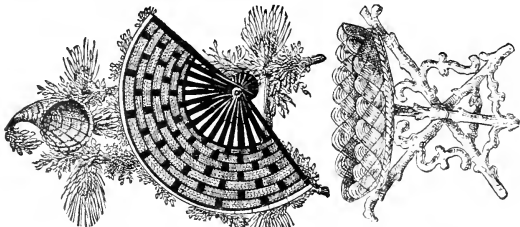
They will last a life-time and you will not be troubled with fungus from rotting wood. They transmit bottom heat better than wood.

Price, \$22.50 for 1,000 sq. feet of surface.

SLATES 1-3 IN. THICK, 20, 22, 24 INCHES LONG.

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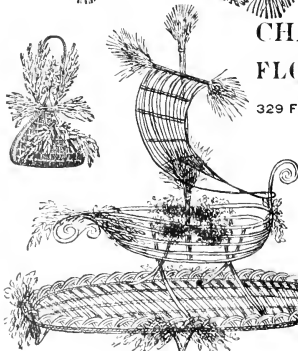
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Send for Terms and Catalogue.

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ESTABLISHED 1854.

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LARGEST STOCK IN AMERICA.

Enclose 3-cent stamp for our new catalogue, containing Practical Hints on growing the "Queen of Flowers." Over 2000 fine plants to choose from.

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ROSEBANK NURSERIES,

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Arundo Donax Variegata,

EXTRA STRONG PLANTS.

\$3.00 a dozen; \$20.00 a hundred.

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MAYWOOD, Bergen Co., N. J.

NEW COLEUS.**HARRY HAROLD & THE MIKADO**

They make elegant exhibition plants. They out-sell any coleus ten to one. We guarantee them first-class. The pair by mail 25 cents; either alone 15 cents.

THOS. G. HAROLD,

KINGSTON, Somerset Co., MD.

PANSIES ONLY! The grandest collection ever offered, including ALL the latest NOVELTIES. Our Seed is warranted to be FRESH, Pure and strictly First-Class. Send for new Circular and Special Price List to the Trade.

ALBERT RENZ, Douglaston, N. Y.**CHRYSAANTHEMUMS.**

I am now prepared to furnish plants by the 100 or 1,000 of over 300 of the best varieties. Send for list.

ROSES.

All the leading forcing varieties. Contracts made now for delivery in May and June. Get your stock from our fine, healthy plants.

W. W. COLES,

Del. Co. Lansdowne, Pa.

Largest Cultivator of

DAHLIAS

In existence.

My handsomely illustrated catalogue of single and double dahlias etc., etc., just issued, will be sent free and post-paid on application.

J. SIECKMAN,

Special Cultivator of

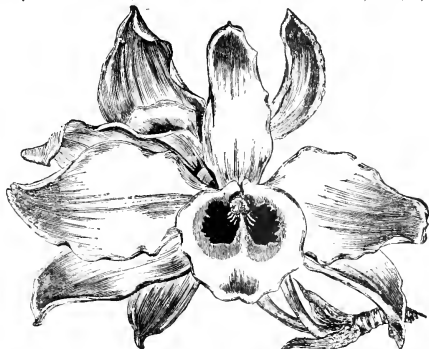
DAHLIA NOVELTIES,

Standard and Dwarf

Budded Roses.

I have received 26 Medals and Premiums.

Kœstritz, in Thuringia, Germany.

ORCHIDS, PALMS AND RARE PLANTS

Cut Orchid Blooms for Florists at Wholesale.

\$10.00, \$15.00, \$20.00 and \$25.00 lots can safely be shipped
any distance in good order.

Siebrecht & Wadley, 409 Fifth Ave., New York.

Regular Shipments made every month from Mexico, Guatemala,
Brazil, Columbia and Venezuela to U. S. A. and Europe.

P. O. BOX, 484.

FINK & CO. CITY OF MEXICO.

Largest Stock of Orchids in America.

PRICES FREE OF ANY CHARGES IN NEW YORK.

Mention American Florist.

Seedsman, Florists, Nurserymen, Eulalia Zebrina & Variegata**IMPORTING BULBS**

See our advertisement on page 337.

R. VAN DER SCHOOT & SON.

Mention American Florist.

4 TO 6 LEADING SHOOTS.

Per 100 \$10.00, by express, by mail, 10 for \$15.00

THOS. G. HAROLD,

Kingston, Somerset Co., Md.

A VALUABLE FUNGICIDE,

HAMMOND'S GRAPE DUST

is a preparation to kill the Destructive Mildew that strikes the Grape Vine, affecting the leaves, fruit and stems in unfavorable seasons. "Grape Dust" is a compound of antiseptics, free from copper, which, so far as is yet determined, appears to be quicker and more efficient in its action than sulphur. It is impalpably fine, diffusing itself further than an equal weight of Sulphur, thereby reaching the mostated spores of fungus development. "Grape Dust" is put up in 25-cent and 50-cent packages, 100-pound kegs and barrels of 20 pounds. SOLD BY SEEDSMEN. For pamphlet, address,

SLUG SHOT, Fishkill-on-Hudson, N. Y.

Spring Sales of Bedding Plants Etc.,

=> AT AUCTION, <=

Every Wednesday & Saturday at 10 a. m.

UNTIL JUNE 11, 1887.

Any one wishing to consign plants to our sales can send by freight and notify us. We will take proper care of them. RATES OF COMMISSION 12½ per cent. for selling and three per cent. for advertising. References, any of the Florists about Boston.

N. F. MCCARTHY & CO., AUCTIONEERS.

Auction Room, Corner Pearl & Purchase Sts.

63 Bromfield St., BOSTON, MASS.

New York.

Wm. C. Wilson's first trade sale of miscellaneous plants was largely attended.

The trade in funeral flowers has doubled in the city during the past year. Mr. James R. Pitcher, of Short-Hills, is one of the most enterprising showmen of all the private growers.

Mr. Cort, of James Veitch & Co., London, is again on a visit here with a marvelous lot of new orchids to tempt collectors with.

Tulips are more favorite for filling vases and court-yard jardinières this season, than pansies or daisies. Before the restaurants, hotels and club-houses there is a brilliant show of the Duc von Thol variety.

Some trailing arbutus from the south arrived here the 15th inst., but it was inferior to that gathered here. The best found in this district is from Huntington, Long Island.

Mr. Wm. Elliott says that though Mr. Henry Siebrecht is one of the best judges of orchids in the city he has worn the same hat for fifteen years. It is understood that he contemplates buying another as spring develops.

The new president of the New York Horticultural society has presented a die made by Tiffany & Co., to that organization.

The office of the *American Garden* will remove from Dey street to Lafayette place.

Mr. H. W. Bayard has made an important improvement to the Perfect Thermostat, for detecting and reporting by electric alarm changes of temperature in greenhouses.

Mr. Isaac Buchanan, one of the oldest growers of orchids around New York, has reached his 78th year, and is as ambitious as ever.

Chicago.

Mr. Flint Kennicott has successfully recovered from a recent severe illness to be around again.

Mr. John E. Bohan, who was in New Orleans at the time of the recent exhibition of the New Orleans Hort. society, reports that the profusion of bloom at the show was a sight to a northerner.

A silver bowl, twelve inches in diameter, filled with hybrid roses—one side Barneiss and the other Mabel Morrison—so as to form a loose bunch two feet in diameter, was recently arranged by J. C. Craig for a dinner table decoration.

At the last meeting of the Florists' club it was decided to hold a mammoth plant and flower exhibition in the early part of next November. Plans will be laid out at next meeting, and it is hoped that all members will be present to vote upon plans advanced.

OUR NEW TRADE

DIRECTORY

Contains over

6,000 Names of Live

Florists, nurserymen and seedsmen, in the United States and Canada.

PRICE ONLY ONE DOLLAR.

AMERICAN FLORIST CO., Chicago.

Ed. JANSSEN,

124 West Nineteenth Street, NEW YORK.

Manufacturer, Importer and Dealer in

STRAW BASKETS WICKER

WILLOW BASKETS GILT

For School Commencements and Spring Trade in general.



FOR THE TRADE.
FLORAL WIRE DESIGNS.

JAS. GRIFFITH,

THE "PIONEER" MANUFACTURER IN THE WEST,
308 Main Street, CINCINNATI, OHIO.

SEND FOR WHOLESALE PRICE LIST.



Florist's Letters

Patent applied for
These letters are made of the best immortelles, wired on wood or metal frames with holes to insert footpicks.

Prices on Wood Frames:

2-in. Purple... Per 100 \$3.00
Less than 100, 35c

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Send for sample Postage 10c. per 100 Script lettering on Metal Frames any word, 8c. per letter.

Designs, Monograms, etc.

W. C. KRICK,

1107 Broadway, Brooklyn,

N. Y.

J. C. VAUGHAN, Chicago,

Agt. west of Pennsylvania

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To have shabby printing, or send out a catalogue that is not attractive, correct and well illustrated.

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THE FLORIST PRINTER

Who has years of experience in this specialty, as well as plenty of fine cuts and good material for superior productions. Send for new circular, and estimates for anything, to

J. Horace McFarland,

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HARRISBURG, PA.

Mention American Florist.

Delegates to the next THE
convention will travel via the PULLMAN CAR LINE
TO AND FROM
Louisville, Indianapolis, Cincinnati and the winter
resorts of Florida and the South. For full information
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E. O. McCormick, Gen. Passenger Agt., Chicago.

100 Michigan Ave., Chicago, Ill.

E. O. McCormick, Gen. Passenger Agt., Chicago.

GREENHOUSE HEATING.

BY A. B. FOWLER.

Explain fully all the best systems of heating greenhouses by both hot water and low-pressure steam. Tells you the points to consider in selecting an apparatus. How to adjust same to various locations, gives the results of the latest scientific experiments. Shows how to compute the number of feet of pipe required for a given space; draft and other important matters.

It is highly recommended by Mr. John Thorpe and others. Postpaid, 75c.

Sent on receipt of price. Address,

AMERICAN FLORIST,

CHICAGO.

M. M. BAYERSDORFER & CO.,

56 N. 4th Street, Philadelphia, Pa.,

Manufacturers and Importers of

Baskets & Florist's Supplies

NEW CATALOGUE READY,

and sent free on application.

CYPRESS + BARS.

THE

Best Sash Bar on Earth,

And the best wood known for greenhouse

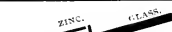
construction. Is as lasting and

Better than Cedar.

Plain Bars 1 3/4 x 1 3/4, 2 cts. per foot lineal.

LOCKLAND LUMBER CO.,

LOCKLAND, O.



J. M. GASSER'S

PAT. ZINC JOINTS

For Butting Glass without Laps.

Makes it air and water tight. No breakage from frost. Saves fuel and glass.
FLORISTS: W. H. H. MAN, for Flues and Hot Water, \$10.00; for Steam, \$5.00. It will ring a bell when the temperature changes, and ring when the steam goes down.

J. M. GASSER.

71 Euclid Avenue, CLEVELAND, OHIO.

TOBACCO STEMS

FOR FLORISTS

For SALE, packed in bales of 200 to 250 lbs.

No CHARGE for delivering to depots.

— PRICE —

From \$8 to \$10 per ton, according to quantities.

Address,

P. C. FULWEILER,

716 Arch Street, Philadelphia, Pa.

SOMETHING NEW IN

HEATING APPARATUS FOR GREENHOUSES.

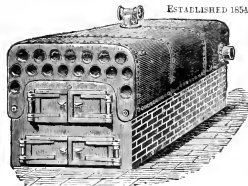
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CHICAGO, ILL.

ESTABLISHED 1854.



Wrought Iron Hot Water Boilers

a specialty. Capacity from 30 to 6,000 ft. cubic pipe. The flat-top type is the best greenhouse boiler made. Mention American Florist.

GLASS & PAINTS
—FOR—
GREENHOUSEMEN
W. C. PEALE & BRO.
332 & 334 CENTRAL AVE., CINCINNATI, O.

Write for Prices, or consult Cincinnati Mt Report in this Paper

ESTABLISHED, 1866.

Floral Wire Designs,

Manufactured by

N. STEPPENS.

335 East 21st Street. - NEW YORK.



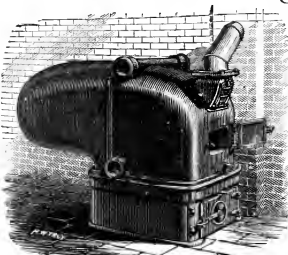
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C. A. KUEHN
MANUFACTURER OF
THE PATENT CLAMP
FLORISTS'
ORNAMENTAL
WIRE DESIGNS,
1432 MORGAN ST.
ST. LOUIS, MO.
SEND FOR
WHOLESALE
PRICE LIST.

HALES' MOLE TRAP

For destroying ground moles in lawns, parks, gardens and cemeteries. The only PERFECT mole trap in existence. Guaranteed to catch moles where all other traps fail. Sold by seedsmen, Agricultural Implement and Hardware dealers, or sent by express on receipt of \$2.40 by H. W. HALES, RIDGEWOOD, N. J.

Greenhouse Heating AND Ventilating



HITCHINGS & CO.

233 Mercer Street, New York.

Five Patterns of Boilers,
Eighteen Sizes,
Corrugated Fire Box Boilers
Saddle Boilers,
Conical Boilers,
Base Burning Water Heaters

Perfect Sash Raising Apparatus.

Send 4 cents postage for Illustrated Catalogue.



All glaziers Supplies. Write for Latest Prices
Mention American Florist.

Ives' Putty Machine.

Patented Jan. 8, 1887.

The best device ever invented for laying putty. With this you can make old leaky sash perfectly tight without removing the glass. It will do the work of five men in bedding glass.

Sent by Express on receipt of price, \$2.50.

J. H. IVES, DANBURY, CONN.

Flower Pots.

A large stock always on hand. Send for Price List.

MILLER & HUNT.

Wright's Grove, CHICAGO.

FLORISTS READ.

This ad is our only traveling salesman, our samples and prices make sales. We now sell thousands of plants. New freight low helps us. Rate to Boston points: New York, Bx; Phila. points, Bx; Pittsburgh, Bx; Cleveland, Bx; Chicago, Bx; Indianapolis, Bx; St. Louis, Bx. Write for new prices and rates of frt.

J. N. PERKINS, MANAGER, SYRACUSE, N. Y.

SYRACUSE POTTERY
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Index to Advertisers.

Advertising Rates, etc.	377	Kriek, W. C.	340
Allen, W. S.	341	Knight, E.	341
American Florist Co.	328	Kuehn, C. A.	341
Bader, P. A.	344	Lane, W. D.	345
Bartle, John, Bos.	281	Larkin, James	345
Bayard, M. M. A.	345	Lathrop & Studt	345
Benz, Albert	280	Lee, D. & Son	345
Bloch, Wm. A.	281	Leckband Lumber Co.	345
Boysen, James L.	281	McAlister, P. E.	341
Brackenberg & Co.	281	McKeth, Thos.	345
Breitmeyer, John & Sons	281	McCarthy, N. F. & Co.	345
Brenemann & Peterson	281	McFarland, J. Horn	345
Buckelberg, Hermann	281	May, J. J.	345
Burton, Arthur M.	281	Medel Plant & Seed Co.	345
Carmody, J. H.	281	Miller & Hunt	345
Chambers, W. J.	281	Monon Road	345
Chapman Bros.	344	Moon, S. O.	345
Chester, J. W.	281	Moran, Ed.	345
Coles, W. W.	281	Murdoch, John R. A.	345
Compagnie Continentale	281	Murphy, J. A.	345
D. H. Corbridge	281	Myers & Co.	345
Frage & Bro.	281	Natz & Seamer	345
Gruehl, R. P. & Co.	281	Penle, W. C. & Bro.	345
Curwen, John, Jr.	281	Pennock, Chas. E.	345
Dickson, J. W.	281	Perkins, John J.	345
Dickson, John, Jr.	281	Perkins, J. N.	345
Dickson, John, Jr. & Co.	281	Plenty, Joseph	345
Desmond, Wm.	281	Price, Charles S.	345
De Vries, J. A.	281	Radian, Wm.	345
De Vries, J. A. & Sons	281	Reider, J. A.	345
De Vries, J. A. & Sons	281	Remmers, Charles W.	345
Dickson, Albert	281	Rice & Whitney	345
Dickson, Alex. & Sons	281	Rolker, Aug. & Sons	345
Dillon, J. L.	281	Saltzman, J. A.	345
Dunbar & Condit Co.	281	Schlegel & Fottler	345
Dunbar, T. & Co.	281	Schultz, Jacob	345
Dunbar, W. J.	281	Sedley, John A.	345
Dwyer, Henry A.	281	Sedley Bros.	345
Elliot, H. A. Co.	281	Shepherd, Mrs. T. B.	345
Evell, W. S. & Son	281	Soley, Hiram & Co.	345
Exeter Machine Works	345	Sprecht & Walley	345
Exeter Machine Works	345	Stearns, J. A.	345
Forest Glen Floral Co.	345	Sullivan, J. A.	345
Frederick, P. C.	345	Sullivan, J. A. & Son	345
Garrison, A. E.	345	Starr, Charles T.	345
Gasper, J. M.	345	Stearns, J. A.	345
Gardner, A. C.	345	Stewart, Wm. J.	345
Griffith, Jas.	345	Stewart, J. C. & Co.	345
Hales, H. W.	345	Tapia, James	345
Hallberg & Thorpe	345	Thompson, Geo. & Son	345
Hammill & Hunter	345	Thompson, J. S. & Son	345
Hammill, S. H.	345	Trubee, M. & Son	345
Harold, Thos.	345	Ude, J. Wm.	345
Henderson, Peter	345	Vander Schuer, R. A.	345
Hendrick, James	345	Van Lochem, J. J.	345
Hennrich, C. & Co.	345	Vandugan, J. C.	345
Higley, Henry C.	345	Vestal, Joseph W.	345
Hill & Co.	345	Weathered, Thos. W.	345
Hilborn, W. T.	345	Welch Bros.	345
Hilborn & Co.	345	Whitlin, Henry Co.	345
Hosker, H. M.	345	Wilke Mfg. Co.	345
Horan, James	345	Wilson Bros.	345
Holbrook Bros.	345	Wilson, Wm. J.	345
Hove, J. H.	345	Wood, J. C. & Bro.	345
Hansen, Ed.	345	Young & Elliott	345
Jewett, Z. K.	345	Young, Thos. Jr. & Co.	345
Kendall, C. H.	345	Zangeneh, Henry	345
Kerr, John	345		
King, James	345		
Kramer, L. R.	345		



Sectional View.

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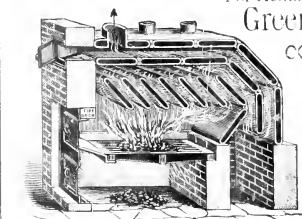
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Vol. II.

CHICAGO AND NEW YORK, MAY 15, 1887.

No. 43.

THE AMERICAN FLORIST

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SOCIETY OF AMERICAN FLORISTS.—Robert Craig, Philadelphia, Pres.; J. C. Vaughan, V. Pres.; M. A. Hunt, Treas.; Edwin Lonsdale, Chestnut Hill, Philadelphia, Secy. The third annual meeting at Chicago, August 16, 17 and 18, 1887.

DECORATION DAY.—In the rush of the plant trade the opportunities for cut-flower business, May 30 must not be overlooked. On no day in the year are more flowers used, though at moderate prices.

THE NEW HAIL ASSOCIATION is now fully organized, under the laws of New Jersey, and with charter and by-laws entirely satisfactory to the directors of that body. It is believed that the plan, as organized, presents a most desirable opportunity to prove, at the least possible expense or risk to the insured, the feasibility of a Mutual Hail Insurance on the benevolent plan. We believe it to be the high duty and pleasure of every large owner of glass to join this cause, even in a small way, to at least give the plan a fair trial, hoping that it may prove what is hoped for—a self-supporting, economical safe-guard for the smaller houses and beginners in business against that which so often has been the ruin of such places. Had we the eloquence of Secretary Hill, we might continue in the high spirit shown in his Philadelphia speech, in which he said: "All members of our association should lay aside petty differences, as to details, and unite in support of a practical and earnest experiment." The working details of such a plan having now been formulated, we trust it may have a fair trial. Write Secretary John G. Esler, Saddle River, N. J., for his circulars.

SUBSCRIPTIONS for the AMERICAN FLORIST may be left with any of the following.

Baltimore,	New Orleans,
R. J. Haliday,	H. A. Despommier,
Boston, W. J. Stewart,	Philadelphia,
Buffalo, Daniel B. Long,	Edwin Lonsdale,
Cincinnati,	New York, W. S. Allen,
Harry Sunderbruch,	Aug. Kolker & Sons,
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Mrs. E. G. Campbell,	Pittsburgh,
Detroit,	J. R. & A. Murdoch,
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J. Horace McFarland,	Toronto, Cox,
Louisville,	J. A. Simmers,
George Thompson &	Washington, D. C.,
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The New York Flower Show.

The late show of the New York Horticultural Society, held in the Eden Musee April 26 to May 1, possessed a good many interesting features, as usual, though disappointing in some respects. It was intended more as a rose show, and these flowers were well represented, though there were some remarkably fine orchids. Cut flowers predominated; the

Meteor is very rich and velvety in color, it may prove to be the "tea Jack" we have looked for so long and hopelessly.

Mr. May displayed that most coquetish dignitary, Her Majesty. They were finer flowers than we have seen heretofore, and give one a better opinion of the plant, but I fear this representative of royalty will never become a favorite on American soil. The game is not worth the candle.

The new roses seemed to run chiefly to teas, but Mr. Peter Henderson exhibited his new hybrid perpetual, Dinsmore. It is a very good crimson; I imagine it will prove most satisfactory for the hardy garden. Taken as a whole, the roses were very fine. All the H. P. class were good, Paul Neyron and Merveille de Lyon especially so. There were American beauties most worthy of their name, rich in color and perfect in shape, and some very fine Brides.

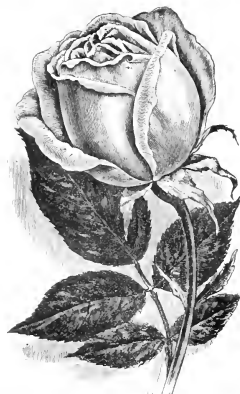
Misses Lonsdale & Burton came over from Philadelphia just to take the prize for Beauties; Mr. May's Brides easily secured the honors. Papa Gontier and W. E. Bennett were open to all admiration, and all the other leading representatives of Queen Rose were there.

Mr. Falconer, gardener to Mr. C. A. Dana, showed us what may be done with calceolarias,—when you know how. This charming old plant is rather neglected in this country, and we rarely see it well grown. Mr. Falconer's plants were perfect masses of flowers, passing through all the shades, from deep crimson to golden yellow. He considers that the prevailing fault with calceolarias is keeping them too warm; he keeps his plants in a cold frame until the weather becomes really severe.

The cut orchids from Mr. Kimball's place at Rochester were extremely fine. Cypripedium Stoeckii and C. caudatum roseum were worthy of much attention, also C. Morganæ, Dendrobium Dalhousieanum and D. Wardianum were large and well-colored. Lælia elegans and purpurata, an assortment of cattleyas, oncidiums, phalaenopsis, etc., made a charming group.

There were orchid plants from Mr. Fitch's place, W. C. Wilson, and Jas. Lockwood, of Stamford. Mr. Mandl, of the Cambridge Botanic gardens, sent cut flowers, both orchids and hardy stuff. There were kalmias and trilliums among these latter, which I imagine must have been forced; there can be no kalmia flowering on its own account outdoors at this season.

The plateau in the centre of the hall was very gracefully arranged. In the centre were aspidochloas and gladioli from Mr. Roenbeck's collection; below were assorted flowering plants and cut flowers; a group of orchids nestling in feathery asparagus were especially charming.

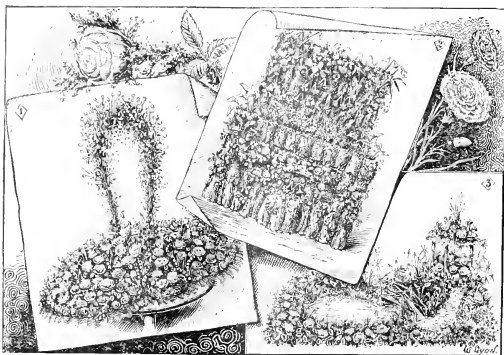


display of plants was certainly meagre, not to say poverty-stricken, with the exception of a few palms—good, but not remarkable, and some fine ferns, there was literally nothing in this direction.

New roses were out in full force. Comtesse de Frignouse, the new yellow tea that is to take the place of the recalcitrant Perle des Jardins, created a very favorable impression. The flower is a good size, and very shapely; the color is a charming clear golden yellow.

A new tea exhibited by Mr. John Henderson is Mme. de Watteville; it is a charming shell pink, shading to a deeper tint at the edge of the petals. It is slightly suggestive of Mme. Cusin in coloring, but is larger. Gabrielle Drevet, another newcomer, is buff, shading to pink; pretty, but small.

Mr. Evans, of Philadelphia, was represented by Mrs. John Laing and Meteor; the pretty pink of the former made an effective foil for its dark-hued companion.



SKETCHES AT THE W. C. WILSON SHOW.

A. Arranged by Frank Hamilton, entered third prize. B. Marché arranged by Julius Henderson, entered second prize. C. Land up. D. Land up. E. Land up. F. Land up. G. Land up. H. Land up. I. Land up. J. Land up. K. Land up. L. Land up. M. Land up. N. Land up. O. Land up. P. Land up. Q. Land up. R. Land up. S. Land up. T. Land up. U. Land up. V. Land up. W. Land up. X. Land up. Y. Land up. Z. Land up.

There was a small collection of fruit and vegetables; tomatoes, cucumbers, string beans and mushrooms represented the one; strawberries and cherries the other. John G. Gardener, gardener to Pierre Lorillard, Johnstown, N. J., and L. L. Powell, West Town, Pa., were the exhibitors.

In the general collections of cut flowers there were some fine rhododendrons and a few chrysanthemums, which seemed to wonder what had induced them to flower at such an inappropriate season.

One of the features of this show was the award of a beautiful silver cup or vase, offered by President Spaulding, for the best floral design. Every arrangement was made to meet the wild rush of competition. I saw *thru* entries. Presumably the florists were modestly hanging back, out of regard for one another's superior talents. The beauteous Mrs. Langtry, wearing a beaming smile and a purple gown, whose make up is indelibly impressed on the mind of every woman present, was one of the judges.

Each design was worthy of some commendation, but Mr. Le Mout's very easily bore away the cup. His creation was a large table, about six feet square. The cover, falling in graceful folds at the corners, was of pale yellow and dark purple pansies, arranged in wide bands. At the corners, lying on the table cover, were trailing bunches of roses; Catherine Mermet and pink moss put diagonally at two corners, Marechal Niel at the other two. In the centre of the table was a gracefully shaped vase, the base of violets resting upon a mat of white flowers, jasmine, lily of the valley and passifloras. The body of the vase was composed of mignonette, forget-me-not, and pale red low pansies; the handle was of Bon Silene buds. The vase was filled with an immense bunch of large roses. It was a remarkably fine piece of workmanship, apart from its beauty and originality; the latter quality is always present in Mr. Le Mout's work. Certainly, this design deserved all the praise we can bestow, in addition to the silver cup.

Another design was a well-arranged oval

basket, having in the centre two dancing bears, surmounted by the motto "Bear and Forbear," and a true lover's knot. The basket was pretty, but the menagerie thrown in was a mistake. The third design was a large mantel and fire-place of virgin cork, decorated with flowers.



MARSHALL WOOD.

It seems surprising that there was not greater competition, when we recollect the beautiful display at the design show a few years back.

By the way, Mr. Wiegand's mignonette seems likely to attain the growth of Jack's famous beaustalk; some of the sprays at this show seemed like half-drawn big stalks rolled into one and then flattened.

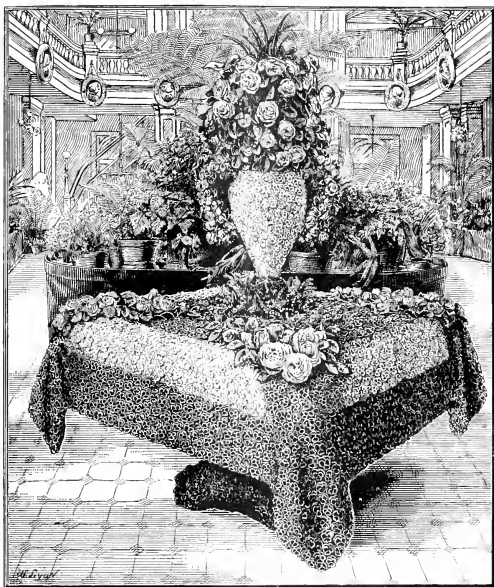
Those in charge of the arrangements worked hard, and made the best of their

materials, and the president proved himself a chief executive in the most liberal sense of the word. But if they had only had more good plants they could have altered the hall until the hard-looking plaster citizen, who poses as St. Anthony in one corner, would never have known the place.

Following is a list of the awards: Twelve specimen orchids, R. Brett, Short Hills, N. J.; six ditto, the same. Best group of palms—First, Siebrecht & Wadley; second, John Finn. Twelve ornamental foliage plants—Siebrecht & Wadley. Pair specimen palms—First, Siebrecht & Wadley; second, John Finn. Single specimen palm—First, Siebrecht & Wadley; second, John Finn. Best single stove plant—Siebrecht & Wadley. Best collection cut orchids—Geo. Savage, gardener to W. S. Kimball. Collection of pansies—Bidwell Bros., Jersey City. Collection cut flowers—Richard Brett. Six specimen orchids—W. C. Wilson. Threespecimen orchids, W. C. Wilson. One specimen orchid, W. C. Wilson; Six pots lily of the valley, W. C. Wilson. Florists' collection cut flowers—First, Siebrecht & Wadley; second, Peter Henderson. Display of tulips, Siebrecht & Wadley. Display tender roses, John Henderson. Twelve Brides—First, J. N. May; second, John Jones. Twelve Cornelia Cook—First, John Henderson; second, John N. May. Twelve Catherine Mermet—First, John N. May; second, John H. Taylor. Twelve Niphotos—First, M. Wiegand; second, John H. Taylor. Twelve Bon Silene—First, John N. May; second, John H. Taylor. Twelve Perle des Jardins—First, John Henderson; second, John H. Taylor. Twelve Papa Goutier—John Henderson. Twelve Souvenir d'un Ami—First, John N. May; second, John Henderson. New tea rose, John Henderson. American Beauty—First, Lonsdale & Burton; second, John N. May. Twelve La France: John Foley, W. F. Bennett—First, John Jones; second, John N. May. Twelve Annie de Diesbach, Julius Roehrs. Twelve Baroness Rothschild—First, Julius Roehrs; second, M. Wiegand. Twelve Jacqueminot, M. Wiegand. Twelve Her Majesty, John N. May. Twelve Marquis de Castellane—First, John N. May; second, Julius W. Roehrs. Twelve Magna Charta—First, J. Roehrs; second, John H. Taylor. Twelve Merveille de Lyon, John N. May. Twelve Paul Neyron, M. Wiegand. New H. P. rose, Peter Henderson. Twelve red carnations—First, John H. Taylor; second, James Lockwood. Twelve crimson, do., the same. Twelve white do., the same. Twelve pink carnations, John H. Taylor. Twelve yellow variegated carnations, J. H. Taylor. Twelve other variegated do., J. H. Taylor. New carnation—First, J. H. Taylor; second, Jas. Lockwood. Collection forced vegetables, J. G. Gardener. Twenty-five mushrooms, J. G. Gardener. Fifty strawberries, L. L. Powell.

EMILY LOUISE TAPLIN.

OKLAND, CAL.—The exhibits at the floral festival were remarkable for their beauty and variety. A fine showing of orchids and ferns was a feature. An enormous quantity of cut-daisy cut bloom was used. A rose bouquet contained 200 buds. A very fine display of camellias was made by Mr. E. Gill. The award for the best display of cut flowers was given to the Alameda flower mission. The state university exhibited a fine collection of economic plants. Mr. James Hutchinson exhibited 150 varieties of plants.



THE DESIGN WHICH WON THE SILVER C. AT THE NEW YORK SHOW

Commercial Floriculture.

Mr. W. J. Stewart, in the *AMERICAN FLORIST* for March, has given us an elaborate article on commercial floriculture, in which some statements are made which do not convey very accurate ideas regarding some of the subjects discussed. Such questions as these are asked: "What is commercial floriculture?" "What is a florist?" And "what is a gardener?" And in answering these questions there seems to be a slight confusion of ideas regarding the respective fields in which those classes work which leaves us in doubt as to whether they are separate and distinct, or simply phases of one and the same business.

It is true these classes are intimately related, but as we understand the terms, a gardener is one whose business is to cultivate all manner of fruits, flowers and vegetables, as well as to have a knowledge of everything relating to a garden. A florist is one whose special business is to cultivate flowers either for pleasure or for profit, and that class who simply trade in plants and cut flowers may be designated commercial florists, but in no other sense to be regarded as a florist more than the man who simply buys and sells watches can be considered a watchmaker.

No doubt there are many estimable individuals in this class—men who can play their parts well in arranging flowers into every conceivable form: they may

be able to decorate ball rooms and dinner tables with the utmost taste, fustoon bowers to the delight of sentimental pairs while bending their necks to the matrimonial yoke, keep well up to the fashions in funeral designs, and have an eye to the "dainty gifts spring habies receive in the flower line. Little gilt perambulators, cradles and socks, which are filled with tiny blossoms, and sent with congratulatory messages when these strangers are born." If such ingenious and diverting triflers as these continue to increase, no wonder Mr. S. says that "the future will have to coin new words if it will keep up with the florists' trade." But we fail to perceive any need for new words unless such as shall be required for the names of new plants as they become known.

Mr. S. does not seem to have a high opinion of those he calls the florists of the past generation, as they are regarded by him as "occupying a station in society about on a plane with the coachman and hostler, and expected to be experts at milking cows," etc. There may be some truth in this, but why speak of this class as belonging to the past generation, seeing that it is as numerous now as ever it has been, and is likely to continue so long as there are families of moderate means to employ handy laborers to cultivate a few vegetables and flowers, and do other needful work about their homes. Men filling such places are not to be confounded with gardeners,

either in the past or in the present, who have gone through an arduous course of training under competent instructors before being qualified to fill places of trust. From this class have sprung many of the leading florists of the day, and to whose thorough training horticulture in all its branches receives the most able support.

Neither do we believe, as Mr. S. tells us, that the love of money has been the chief cause of so many men leaving the comforts of home to traverse the most inhospitable regions in quest of undiscovered plants. This may have had something to do in the case of wealthy firms sending out botanical collectors at their own expense, but no such motive as this impelled Douglas to his tragic and untimely death, or Hooker to the steep slopes of the Himalayas, or Labillardier to all but perish of thirst in the arid wastes of Australia, or David Bowman, who fell a victim to disease in South America, and to whom we owe *Dieffenbachia Bowmanii*, and other interesting plants. We believe rather that the most, if not all, of such enterprises have been planned and carried into execution through the desire of adding to the sum of knowledge regarding the endless forms of vegetation which are distributed over the surface of the globe. It is true that man, the worker, must have his "little dues of wheat, and wine and oil," but it is nothing short of a travesty upon such enterprises to regard those who embark in them as specially under the sordid influence of Mammon. Neither does it appear that the most of those who have distinguished themselves in obtaining new varieties of vegetables, fruits and flowers, by selection or cross-fertilization, have been tempted to the task, so much from the love of gain, as the desire to guide up to ideal standards of excellence the various forms of vegetation in which they take the most delight.

It is true that commercial floriculture has made rapid progress during the last twenty-five years, and from some points of view the results are most satisfactory, but in others there is not so much to admire, as we do not see a corresponding increase of plant lore among those employed in the business. This may be owing in part to the extraordinary demand there is for cut flowers furnished by a limited number of plants, the result of which is that scores of young men can discourse fluently on the merits of roses, carnations and violets, who have not made a single trip into the botanical field, or bestowed the least attention upon Alpine and herbaceous plants, or the unique forms of Cape and Australian productions which lent such a charm to greenhouses in years gone by. While, therefore, public taste is drifting in full tide in the direction of flowers to wear and work into public designs, would it not be well were a little more attention bestowed upon all plants as they are seen and appreciated by the botanical student?

A. VEITCH.
New Haven, Conn., April 30.

SAN JOSE, CAL.—An elaborate floral festival was opened here May 5.

PHILADELPHIA.—At a meeting of the Florists' Club, held May 3, a paper was read by Mr. Geo. Anderson, on the counter advantages of raised benches and solid beds for forcing roses. A resolution that "Teas and hybrid tea roses (not excepting *La France* or *American Beauty*) can be more profitably grown for cut flowers on benches the year round rather than in solid beds," was discussed.



The Cypripedium.

BY W. A. MANDA.

The geographical distribution of this genus is the widest of any known genera of orchideaceous plants, and we might almost say, of any plants known. It is well represented throughout this country. In the eastern portion we find *C. arietinum*, *C. acule*, *C. pubescens*, *C. parviflorum*, *C. candidum*, and the beautiful *C. spectabile*; while the far west is the home of the *C. guttatum*, *C. occidentale*, *C. montanum*, the rare *C. passerinum*, and the only recently discovered *C. fasciculatum*. In Mexico we find the *C. trapeanum*, and here ends the line of true cypripeds, they being replaced by the selenipediums and Urepedium. It is between Mexico and the Argentine Republic that we find the *C. candatum*, *C. Wallisii*, *C. vittatum*, *C. carinatum*, *C. Roezlii*, *C. longifolium*, *C. gracile*, *C. Schlimii*, *C. Lindleyanum*, *C. Schomburgkianum*, *C. Hartwegii*, *C. palmifolium*, *C. Chica*, *C. reticulatum*, *C. Hinkianum*, *C. Boissierianum*, *Klotzianum* and *Urepedium Lindleyi*.

In Europe is found the *C. calceolus* and *C. macranthum*, the latter occurring also through Siberia and Japan, where grows also *C. Japonicum* and the very little-known *C. cardiophyllum*.

The *C. purpuratum* grows in China, while the *C. callosum* and *C. Godefroyae* were only recently discovered in Siam. The Malay Peninsula is very rich in Cypripeds; from there we have the *C. barbatum* in vars. *C. ciliolare*, *C. niveum*, *C. concolor*, *C. Mastersianum* and the new and rare *C. Sanderianum*. In the neighboring Burmah is found *C. Boxallii*, *C. Parishii* and *C. villosum*. In Assam, Bhootan and Nepal are at home the popular and well-known *C. venustum*, *C. insignis* with its numerous varieties, *C. hirsutissimum*, *C. Spicerianum*, and the rare *C. Faircanum*, *C. cordigerum* may also be found there. The *C. Druryi* grows away in Mysore. Many of the islands are very rich in these plants. Thus we find in Borneo the *C. Lowii*, *C. Stoneyi*, *C. Petri*, *C. Hoekerei*, *C. Lawrenceanum*, *C. Dayanum*, *C. Bollenianum*, and the very rare *C. platyneurum*. In the Philippine Islands are the *C. Argus*, *C. Juno*, *C. laevigatum*, *C. Roebellianii*, and *C. Hayianum*. In Java and Sumatra are found *C. Curtisii*, *C. Tonsum*, *C. superbiens*, and *C. Javanicum*. From the Papuan Islands we have, by description only as yet, the *C. glanduliferum*. There, also, *C. prestans*, *C. Kimballianum* and *Gardneri* were discovered, and have been partly introduced.

Besides those above mentioned, there are a great number of varieties, many of which are considered as species in cultivation; for instance, of the old *C. insignis*, there are over twenty varieties cultivated at present. Notwithstanding the large number of species and varieties now known and introduced, there are many more to be found on the immense mainland of Asia, or on the numerous Asiatic or Australian islands.

Thus the cypripedium is quite a cos-

opolitan plant; it is found in North and South America, Europe, Asia and Australia, and so there is only Africa to be heard from, and I hope that some day we may get quite a new and distinct type from that continent.

There is yet a great field open to an enterprising collector, such as I. Forstermann, to whose energy we are indebted for so many new and beautiful orchids.

Botanic Gardens, Cambridge.

April 18, 1887.

(To be continued.)

Hardy Herbaceous Perennials.

Yes, there is money in them. And there is a wide-spread demand for them. But the people are cautious, and they have occasion to be, for a deal of rubbishy stuff has been distributed along with the good varieties, and many times the plants are such tiny morsels as to arouse in the customer a feeling of disappointment and disgust, rather than of pleasure and satisfaction.

The florist who grows roses, carnations and the like for the wholesale market would not care to touch perennial hardy plants, but the "local" florist,—that is, the florist who has a home retail trade, and contracts for the care and furnishing of gardens in his vicinity; also the florist who runs a general plant retail trade, will find hardy plants not only profitable to themselves but satisfactory to their customers.

But great discrimination in the selection of kinds is necessary to success. Choose such kinds as are perfectly hardy,



DOG'S-TOOTH VIOLET.

easy to grow, inexpensive, and of neat and becoming appearance, and which have bright, beautiful and showy flowers. And if the blossoms are suitable for "cut" flowers so-much the better. And touch nothing that you cannot propagate easily and rapidly. Have nothing to do with coarse, weedy or trashy plants, puny things or "muffy" sorts, or plants requiring special care or cultivation; let half-hardy stock alone, and avoid anything having insignificant, washy or ephemeral flowers. After the florist has familiarized himself with the best of our common choice perennials, he may then experiment with others.

Among hardy herbaceous perennials we have hundreds upon hundreds of plants well worth growing, but not all as open border plants. Some are fitted for

the open border, others for shady places, a few for bogs, many for rock-work, and so on. But I should advise the florist who is not a specialist in hardy plants to confine himself to the cream of the border plants, that is, such plants as can be successfully grown by anybody with common cultivation and in any ordinary garden.

Aside from the money value of perennials so far as sales are concerned, don't you think that their appropriate use in



DOG'S-TOOTH VIOLET.

beautifying your own place, and in this way drawing the attention of your townspeople to your establishment, is worth something? In the summer time we set out our geraniums, coleuses, dahlias, gladioluses and the like for stock purposes, and at the same time contrive to use some of them in a decorative sense about our house or in front of our greenhouses. It is all very well to have a display of flowers in summer; most everyone who has not a garden has lots of flowers at the same time. Now, try and get out of the common rut. Instead of painting your place with flowers from May till October, you may just as well paint it from March till November. There is a charm about spring flowers that no summer-blooming geranium ever possessed, and they rivet the attention and admiration of everyone,—the toddling child, the children as they pass to school, and passers-by of every age. Let them see something few of them see at home, something bright and pretty, something that costs but little and needs but little care, and which anyone having a little garden patch may have at home, and that too just as bright and pretty as the florist has. Spread snowdrops, crocuses and Siberian squills where they will not interfere with summer operations; plant colonies of old-fashioned daffodils and Poet's narcissus, also tulips and grape hyacinths. In open sunny places plant borders or patches of white rock cress (*Arabis albidula*), white or red moss-pink (*Phlox subulata*), and spring adonis (*Adonis vernalis*). And in places somewhat open in spring but a little shady in summer distribute blood root, trilliums, dog's-tooth violets (*Erythronium*), hepatics, dwarf periwinkle, Caucasian doricum, Virginia lungwort (Mertensia), evergreen candytuft, dwarf hris, and the slender-leaved paeonia (*P. tenuifolia*, fl. pl.), and have a bed of lily of the valley. And if you grow pansies, daisies, crown anemones, forget-me-nots, polyanthus and the like in frames over winter you can set some out in spring and thus add to the display. If you desire to get up some pretty flower-bed design, we have houseleeks (*Sempervivum*) by the score, which are perfectly hardy and except the cob-web varieties prettier in the spring



PLANT DECORATION

time than at any other season; the dwarf sedums and veronicas make neat edging or scroll plants.

Among early summer-blooming perennials, *Dicentra spectabilis*, with its arms arching with their load of "bleeding hearts," spires of sorts, including the japonica, of which we force so much; the double-white *S. filipendula*, and the pink *S. palmata*, and *S. venusta*. Beginning with different colored dwarf spring irises, we include the blue *I. pallida*, white *I. florentina*, variously colored German irises, and enter July with Kämpfer's Japanese irises, which are the most gorgeous of their race. The double white garden pink is hardy, and the flowers fragrant and copious. Of veronicas we have many good sorts, but their names are in a terrible muddle. Among the tall or *V. longifolia* section, the variety known as *subsessilis* is the best. The double white, pink and red pyrethrums are lovely flowers. From seed we get single and semi-double varieties, which, in their way, are just as comely as single dahlias. *Cypripediums* require a little shade from warm sunshine else their flowers get scalded. The yellow-flowered species *C. pubescens* and *C. parviflorum* are easily grown, and year after year increase in size and beauty. *C. spectabile* is the most beautiful of all, but requires moister ground than the preceding; it doesn't start above ground till the others are nearly in bloom. *Saxifragas* are magnificent flowers, and all worth growing. The oriental poppy is gorgeous while it lasts. Although the growth is somewhat coarse, and the flowering period short, it is a favorite with the people on account of the large size and brilliance of its flowers. *Thrift*

(*Armeria*) is not only free blooming, but it makes a capital edging plant. The Siberian corydalis, the double genus, the double globe flowers (*Trollius*), monkshood, and *Campanula persicifolia*, are all capital perennials. Among columbines (*Aquilegia*) I prefer the true species to any race of hybrids grown. *A. Siberica*, *A. glandulosa jucunda*, *A. cærulea*, *A. Olympica*, and *A. chrysantha*, are the cream of the lot. *A. Formosa* is the best red, but the commonest in cultivation is *A. trimata*, known in catalogues as *A. Californica*, *Coreopsis lanceolata* is the best of its genus. Among climatises get *C. scuta*, white and *C. Davidiana*, blue, as herbaceous plants; then indulge your taste among a hundred sorts of climbing beauties.

Delphiniums, now-a-days, are grand, but you must get the very best strain of seed in the market; then, as the seedlings bloom, retain the choicest and discard the poorest, and in this way get into a superior stock. The yellow day-lily (*Heimerocallis*) is capital for cutting. The white day-lily *Funkia* likes a shady place. It is fragrant and pretty, and blooms late. The double scarlet *Lychnis chalcedonica* is the best for border cultivation. *Asclepias tuberosa*, although a common wild plant, should not be overlooked. Raise it from seed, and after setting out the plants let them remain undisturbed. *Pentstemon*s include many lovely species, but apart from *P. barbatus*, and its variety *Torreyi*, I should not advise you to touch many of them. The beautiful forms commonly grown in gardens are varieties of *P. gentianoides*, and not hardy. *Achillea Ptarmica* fl. pl. is very useful for florists' work; its profu-

sion of double white flowers come in handy for groundwork in decorations.

Lilies begin with the brilliant Siberian *L. tenuifolium*, and pass through *L. Scovitianum*, *L. elegans*, *L. testaceum*, *L. candidum*, *L. superbum*, *L. speciosum* in its several forms, *L. tigrinum* fl. pl., and *L. Maximowiczii*. There are hosts of others, many of which do astonishingly well sometimes, and again, they may act very queer.

Some of the varieties of the tall phloxes are very fine; a collection of these is well worth having. *Sedum spectabile* makes a fair addition to our late summer flowers, and will grow most anywhere, but prefers a sunny place. If you cut off the flower-heads a week or two before the flowers open, and stick them into the ground so as to make a little border, they will continue plump and fresh, and every blossom will open just as if they had not been disconnected from the parent.

For an airy effect in bouquet work, grow *Gypsophila paniculata*. *Euphorbia corollata* is another plant whose flowers are useful in that respect; but the plant itself is a great weed, particularly in the west. Among fall flowers there is nothing prettier than those of the Japanese anemones, particularly the white one; but the roots want a little covering over in winter. Were *Helianthus multiflorus* and *tritomas* reliably hardy, I would include them, too.

WM. FALCONER.

Plant Decorations.

The popular taste is undoubtedly running more to plant decorations than formerly. Those who have once seen a tastefully arranged decoration of tropical

plants, are impressed with their rich beauty, and when ordering floral decorations request that plants be used where possible. Though this work is undoubtedly hard on plants, frequently spoiling them for a whole season when taken out during inclement weather, we must meet the demand as it grows, and endeavor by improvements in carriage to lessen the amount of damage the plants are liable to sustain when taken out of the house for this purpose.

Our illustration shows a handsome collection of plants very effectively arranged by the B. A. Elliott Co. of Pittsburgh, for an exhibition given by them some time ago. The arrangement shown certainly produces a very rich effect, and the illustration should be of assistance to beginners in this class of decoration.

Bedding Plants at the Chicago Parks' Greenhouses.

SOUTH PARK.—Of geraniums—many thousands of which are here grown yearly—Superintendent Kanst has discarded many of the newer sorts and gone back to the old loves of past years. His list of leading varieties for bedding is now as follows: Single scarlets: Rev. A. Atkinson, a well known variety of medium size, with dark, dazzling scarlet flowers; it grows well but does not stand rain as well as some others; Queen of the West, the old standby; Adam Blumensein, a light scarlet with crimped foliage, grows to a medium height; Diamode, similar to Queen of the West, but bears a more rounded truss which stands well above the foliage and the flowers stand the rain well; Ralph and Gen. Grant. Single white: Clement Bourdieu. Double scarlets: Sapeur Pompier, a tall growing variety suitable for center beds; Pres. Leon Simon, Robt. Buist, and Ernest Lauth; the last three of medium height. Double pink: Waddington, dark; Mad. Thibaut, light, and Dr. Jacoby, mixed white and salmon pink, a stronger grower which is an excellent bedder but of little value under glass.

Of achyranthes, Lindenii, Emersonii and alba, are the only ones used.

Of the innumerable many varieties of coleus but few have stood the test here, and a number of old varieties are retained as the best for bedding. For red the old Verschaffeltii is used exclusively. For dark ones, Velvet Mantle and Marvel. For yellow, Tessellata and a new variety, Mr. J. Goode; of the latter variety Mr. Kanst speaks highly. Other varieties used here for bedding are Her Majesty, Serrata, Rookerii, Admiral and Kentish Fire; the last named being found useful for edging. Mr. K. finds that the varieties of coleus with short-jointed growth stand trimming better than the longer-jointed ones, and this governs his selection of bedding varieties to some extent. He no longer troubles himself as to the different heights of the varieties in planting mixed beds when it is desirable to use them to produce certain contrasts, as he finds that trimming regulates all such unequal growths.

Of alternantheras, paronychioides major is considered the best bright red. As Mr. Kanst's method of propagating this in quantity differs somewhat from methods previously described, and as it is certainly a great success in producing large quantities of good sized plants, we give it. The plants are lifted, potted and placed in a cool greenhouse to remain all winter. About March 20, they are separated and the pieces potted into 2½-inch pots and placed out in a hotbed at

once. If this does not produce as many plants as are needed the balance are propagated from cuttings. This is certainly a quick and inexpensive method. Nearly all the other varieties of alternanthera are used in various positions.

Hot beds and frames are largely used for bedding plants during the early spring months; there are now at South Park about 70,000 plants in beds and frames, which if allowed to remain in the house would take up an enormous amount of room.

The old variety of Begonia semperflora alba is the only begonia which has given any satisfaction here as a bedding plant. A hot bed full of this variety is growing tough and sturdy for next season's bedding. This variety is not as white as the newer variety of the same name, but shows some pink on the edges of the petals.

Enormous quantities of cheverias are used here in bedding each year, and Mr. Kanst's method of keeping up his stock is simple in the extreme. As fall approaches he fills the benches of several greenhouses with clean sand and when the park beds are dismantled—from Sept. 15 to Oct. 10—the cheverias are cut off their roots and placed in the sand beds as cuttings. The beds are then copiously watered—in fact flooded—and kept well watered until they root. After rooting they are kept cool, dry and in the same position all winter, the endeavor being to keep them just above freezing. In spring when they become very dry they are watered lightly. They are removed to hot beds when room is needed in the houses.

Some 25,000 tulips are bedded at the park this spring. Another feature of early bloom are letters of crocus in front of the greenhouses.

In our holiday number we described a bed called "the calendar," in which the month, day and year of cheveria were changed frequently—the day, daily—and we neglected at the time to state just how the frequent changes were made without damage to the plants. Figures and letters of the size required are sawn from inch boards and sides of galvanized iron or zinc are tacked all around, making a design which is planted solid with the cheverias. A sufficiently large "font" of this living type is kept on hand to make the changes as required, the letters or figures being set deep enough in the bed to cover the zinc sides from sight.



LINCOLN PARK.—At the greenhouses the stock of plants is in fine shape. The varieties of geraniums mainly used for bedding here are, singles: Ralph, Atkinson, Queen of the West, Excellent, Dell, Clifton, Master Christine, Gloria de Carbonay and Clement Bourdieu. The doubles are, Wonderful, Madame Thibaut, Guillaume Mangelle, Pres. Leon Simon, Dr. Jacoby and Ernest Lauth.

Of coleus the varieties principally used are, Verschaffeltii, Tessellata, Wonderful, Pine Apple Beauty, Mrs. Bannan (for bordering only), Halcyon and Golden Bedder. Mr. Stromback says that the last named variety keeps its color well, but will not stand cool weather and must be planted late to be satisfactory.

Here as at South Park immense quantities of plants are now in hot beds and frames—some 75,000 being so placed—to

relieve the overcrowded greenhouses. In the construction of the frames was noted a convenient point which may not be known to all of our readers, hence we give a sectional view of the frame used. At the foot of each sash two small elbows of strap-iron are placed to hold the sash from sliding down when the sash is lifted from the rear. All who have watered frames not provided with some such contrivance will at once note the advantage gained. The elbows or catches answer all the purposes of hinges, and still leave the sash free to be removed when desirable. The board set around the upper edge is to prevent wind from blowing in to the bed under the sash from the rear. The bed can be ventilated by lifting the sash at the rear, without any danger of its slipping forward.

A hundred orchids are now on their way from Mexico to be added to the collection now in the park conservatory. The varieties will all be different from those now at the park.

Daily Record of Work Done.

The great value of a diary of each day's operations, as a reference in following years, is admitted by all live men, though but few keep one up for any length of time. Such a diary is kept by Mr. C. Stromback, superintendent of the greenhouses at Lincoln Park, Chicago, and through his courtesy we are enabled to present to our readers a copy of his record from May 15 to May 31, 1886. We expect to continue a copy of this diary in future issues, and feel assured that it will be of considerable value to growers and planters of bedding plants in the latitude of Chicago. As will be noted, the temperature and the direction of the wind is given each day:

May 15.—Temperature: Morning, 52°; noon, 52°; evening, 45°. Wind N. W. to N. Potted cineraria candidissima.

17.—Tem. 54, 65, 60. Wind S. Planted out several geranium beds. Filled vases and potted resedas and oxalis.

18.—Tem. 60, 65, 61. S. to N. E. Filled plant stands out of doors. Potted oxalis. Picked out annuals in frames. Shaded house No. 1 with lath-shades.

19.—Tem. 57, 65, 65. Wind N. to S. E. Planted out geraniums. Potted annuals, antirrhinums and gomphrenas. Finished filling plant stands and vases at south end of park. Planted canna beds at south end.

20.—Tem. 55, 45, 51. N. E. Filled plant stands in front of house. Commenced taking up tulips.

21.—Tem. 60, 82, 80. S. Took up and heeled in tulips. Filled vases and stands. Planted out geraniums and Verbena venosa. Potted gomphrenas from boxes.

22.—Tem. 70, 82, 81. W. to S. W. Continued heeling in tulips, planting geraniums, and potting gomphrenas from boxes.

24.—Tem. 60, 62, 58. N. Planted out Verbena hybr. and geraniums. Finished taking up tulips. Divided and potted Alternanthera aurea.

25.—Tem. 63, 65, 56. N. to S. E. Planted out geraniums and heliotropes. Continued dividing and potting alternanthera.

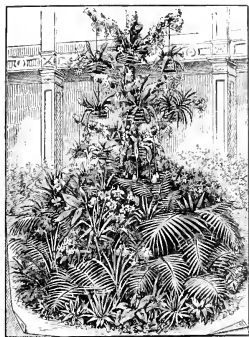
26.—Tem. 56, 73, 72. S. W. Continued dividing and potting Alternanthera aurea. Filled plant boxes. Planted out cannas, fuchsias and gladioli.

27.—Tem. 62, 64, 62. N. to N. E. Commenced planting out carpet beds and beds of mixed plants. Potted Alternantheras and petunias.

28.—Tem. 57, 76, 73. W. to S. W. Continued general planting out.

29.—Tem. 67, 73, 72. W. to N. Dec-oration day.

31.—Tem. 58, 62, 58. N. Planted out torenias, petunias and balsams. Commenced transplanting celosias, from 2½ to 4-inch pots. Divided and potted alternantheras.



THE PRIZE WINNING GROUP OF PLANTS AT THE EXHIBITION OF THE N. J. FLOR. SOCIETY.

List of Prizes Awarded at the Late Show of the N. J. Floricultural Society.

First prizes were awarded for superior excellence to Patrick Boyle, gr. to Henry Graves, Esq., for palms, caladiums, ferns, orchids, cypripediums, and tropical plants; to Louis Bicker, gr. to T. A. Edison, for specimen palms, specimen azalea, fuchsias, and collection of ferns; to Richard Brett, gr. to Jas. R. Pitcher, for specimen palm, azaleas, Spirea Japonica, flowering begonias, dracaenas, tulips, fifty plants in bloom, specimen ferns, amaryllis, orchids twelve plants, do six plants, cypripediums, display of lettuce, and do. cucumbers; to M. Doyle, gr. to G. F. Terry, Esq., for specimen greenhouse plant; to Carl Schaefer, gr. to Samuel Colgate, Esq., for geraniums, Begonia metallica, pansies, Asparagus tenuissimus and display of cauliflower; to H. Kindtsgrub, gr. to C. F. Linde, Esq., for specimen fuchsias and violets; to Louis Conrad, gr. to E. S. Stevin, for Begonia rex and Niphetos roses; to J. D. Kearns, gr. to Samuel Lord, Jr., Esq., for Begonia Saundersonii, petunias, cyclamens, pyramid of assorted flowers, baskets and vases of the same; to F. Bent, for Lilium Harbisi; to W. A. Kennedy, gr. to H. B. Archibutes, for collection of succulents, collection of carnations and tomatoes, and cut blooms of geraniums; to George Gates, gr. to W. H. De Forest, Esq., for roses, Baroness Rothschild, Mad. G. Luizet, Paul Neron, and Capt. Christy; to Thos. J. Slaughter, Esq., for roses, American Beauty, W. F. Bennett and The Bride; to Wm. Maltwood, for Cornelia Cooks and Marechal Niel; to John McGowan, for Cath. Mermet; to Jaquis Bros., for Bon Silence, Perle des Jardins, La France, corsage bouquet and grand design; to Clegg & Colclough, for Carnation Garfield; to Richard Purdue, for choice group of bedding plants.

All of which were very fine. Space will not permit of an enumeration of the whole list in detail of the prizes. We are very sorry to hear that the show was not as well patronized as it was hoped such a fine display of choice plants and flowers would command, but the society is only a yearling yet, and by the time it is grown to maturity we hope to see one of the leading societies in the country for certainly no society is better situated than this is to secure first-class material to make fine displays, as the first show fully attests. M.

Can Heaths be Profitably Grown for Cut Flowers?

By a reference to a recent number of the FLORIST it looks as though the question of heath growing is once more to be brought to the fore. In times gone by there has sometimes been fierce discussions on this topic of growth in this country, always some of course contending that the climate forbade it, no good peat, etc., were among the excuses.

It is a good many years now since the question of their growth has been settled, and what has been done may be done again, and we venture the assertion that the successful grower in this country will not use peat when he grows heaths. This is no new question. Mr. William Saunders, now of Washington, as early as 1849 wrote in the *Florist* against the practice. The late Marshall P. Wilder, of Boston, and a florist by the name of J. E. Roach, of Hoboken, N. J., were each credited with good collections of heaths about the same time.

Early in the fifties heath culture received a fresh impetus from successful growers in Albany, N. Y., amongst whom were the writer, Mr. Wm. Grey now well known as an orchid grower at Hon. Erastus Corning's—the late William Bennett and Louis Menand. At that time heaths of two or three feet diameter and height, and well grown, were no unusual occurrence, and that, too, of the choicer and finer varieties. Not one of the growers around Albany at that time thought of using peat. A thick, matty, turfy loam, well chopped up, made gritty by sand, if not naturally sandy, was about all the soil that was used by them. This, of course, having been previously laid some time in heaps to destroy vegetable life in the soil.

There was one method adopted amongst us all there that is worth consideration by those who are about making the effort of growing for the cut-flower trade. For summer the young plants were planted out in the free ground. The effect of this was to cause a quick rapid growth away ahead of anything that could be obtained by ordinary culture in pots, and it strikes me that this will be the method for the cut-flower growers.

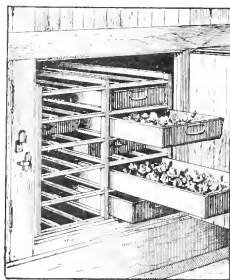
Only those kinds should be selected that have the feathery character peculiar to the heather of the Scots, and possess the easy growth of the Mediterranean, or such as have the flowers in masses all over the branches. That illustrated in a recent number of the FLORIST seems exactly the thing wanted. It is useless to expect much from the formal looking flowers of Cavendishii and Willmoriana class when used as cut flowers, however grand to the eye of the gardener. They may be as specimen plants in pots larger than the plants themselves. Straight lines or stiff formal flowers will never command extensive use with the bouquet makers.

Having selected the kinds wanted, the fewer the better to come in at the same season, prepare the summer position. Select a spot sheltered but not shaded. Have either a cold frame or pit on which glass may be placed to keep off drizzling summer showers that will often cause injury—but have the glass pitching to the north. Take out the soil eighteen inches deep, place some rough sod or other material to ensure quick drainage of superfluous water at the bottom, then fill in with the turfy soil, if mixed with particles of potsherds and charcoal broken very fine so much the better. Allow the soil to settle, and plant eighteen inches to two feet apart. Young plants in 3-inch pots will by fall nearly meet, and will be in a good condition to afford splendid crops of cut flowers the following winter.

There is no difficulty in lifting and potting in the fall, as we have proved time and again with all plants which, like ericaecae, have fine hair like roots. Then again a plant can be grown as large in one year as they can in two or more if in pots. It is possible the coming heath grower will not care to bother with plants one, two or three years old, as it is notorious that with the best of care in this country, in summer a fine heath will often go off in a night. All of which will generally happen after a heavy rain. A heath must not get deal dry nor can it stand water at the feet.

It is well to provide means of partial shade for a few hours in the middle of the day by lath strips. Although it is not desirable to shade or accustom the plants to being shaded but for a few hours. The heaths all come from dry places, and where the sun has full play. They are not accustomed to shade of trees nor will they do well under them.

EDGAR SANDERS.



A Handy Ice Box for Florists.

The best way of utilizing the space in an ice box is a problem frequently before the florist, and as tending to give some assistance in this direction we have prepared a sketch, showing a section of an ice box used by Mr. J. C. Craig, a retail florist of Chicago, which has given him perfect satisfaction for the past year. The box is 9½ feet long, 4½ feet deep, and 7 feet high; it is divided into six compartments of equal size—three above and three below—all connected together for the circulation of cold air. The ice is

kept in the central compartment of the upper part, while the spaces on each side of it are utilized to stand vases or pots of long-stemmed flowers in.

The lower compartments are provided with racks, each holding twelve pans, for loose flowers. These racks are not attached to the box in any way and may be entirely removed from the box when the space is needed for large floral designs or any similar purpose. The great advantage of this will be readily apparent to any florist who has frequently to keep a number of floral pieces over night.

The pans which slide in the rack are 12 inches wide, 3 inches deep, 3 feet long, and are made of galvanized iron. Mr. Craig says that he has never had any flowers rusted from contact with the iron and considers the pans far superior to any other form of tray. The pans are provided with handles at the end so that they may be readily drawn out. The condition of the stock in the box at the time the sketch was made was excellent. The box is provided with bars across its face so that it can be locked up securely at night.



Stocks for Grafting.

This subject seems to have interested two very able gentlemen, who by their articles would seem to diverge somewhat in their views. Mr. Thorpe asks for a stock which will give the best results for flowering purposes in June. Why desire budded or grafted roses, when the roses on their own roots are infinitely preferable in every particular either for June flowering or for producing blooms at any other season of the year? The question of time only becomes a factor in the case of new roses and slender growing teas. Whilst I admit the desirability of using stocks for grafting in the case of new or scarce roses I think it unwise and unnecessary to resort to this method of propagation after our experience and practice in this country the past twenty years. Regarding the suitability of various stocks for the different classes of roses my experience is this: Manetti is very much better than Griffaria for any class of roses; this last named stock is even worse than "dug" Briers in my estimation. If quick work is desired and new roses to be got in quantity then I say use Manetti stock, but if longevity and permanency in your tea varieties be desired, if you must have grafted roses, then use the seedling Brier, or as some call it Eglantine.

There is little to be dreaded from suckers when roses are worked below the cotyledons of the seedling Eglantine, but it is nonsense to claim, as some do, that they will not sucker when thus worked. While talking about the Eglantine it might be well to mention that many of the H. P. class refuse to thrive on it, but not so with the slender growing teas; they seem to enjoy the union for they thrive amazingly. Ma Capucine, Shirley Hill-berd, Le Nankin, and Primrose Dame thrive and flower finely on it. I know nothing of Caroliniana as a stock except

as I have observed the Holland-grow roses which are annually brought to this country, and my opinion was certainly anything but favorable judging by the specimens alluded to. Banksian and strong-growing Noisette varieties are recommended by many for working Niphetos, this no doubt results in the production of very large buds, and where great size is the object it may be well to practice it, but I venture the assertion that a given space of own-root plants will produce five buds to one on the stocks just named.

We have in our houses a batch of Lady Mary Fitzwilliam grafted on the Griffaria and of all the pests to sucker it certainly excels; this may be owing to a lack of affinity between the stock and variety mentioned, but we observe the same in the case of Viscountess Polkestone worked on the same stock.

The French growers are using seedling Polyantha with success, judging by reports. We have this season used the Polyantha variety, Max Singer, as a stock, and it seems to answer quite nicely. Roses that have been grown under excessive heat and been subject to the propagators knife for years will certainly be benefited by grafting on some good stock, and a new lease of vigorous life will be given the worn-down variety, but the same restoration can be brought about by treating plants properly that are on their own roots.

If I mistake not there will be a great amount of grafting done the coming year or two, only to result in finding out that we have been chasing a phantom, and a return to the old method of own-root plants will be the result; the better plan is to "hold fast to that which is good and tried," and let the *fastidious* run the "prow" of that vessel into unknown seas." Sometimes the prow gets stove and the vessel sinks, but we trust no such fate awaits the rose growers who launch out upon the Manetti or other stock to "better his roses."

To sum the whole matter up in a nut shell, don't graft roses on any kind of stock. Use own-root plants if procurable. In the case of new varieties plant grafted roses if the varieties cannot be procured on their own roots.

Richmond, Ind. E. G. HILL.

Stocks for Grafting.

I have read with great interest the article on "Stocks for Grafting," by Mr. E. G. Hill, in April 1 issue of the AMERICAN FLORIST, and although I have not the honor to be an horticulturalist, I take the liberty of giving my opinion on the subject.

The influence of the stock on the graft cannot be denied. We must therefore first consider the object to be attained. What is it we desire, particularly in those grown in pots under glass? The important consideration is to have as quickly as possible plants which will bloom freely and abundantly.

My experience as an amateur has taught me that several hybrid perpetuals do not bloom as well when grafted on the Brier as those on their own roots, and my conclusion as to the cause was that the stock was a long time at rest after the first blooming; this has also been the case with some teas. I think, therefore, that a more constant growing stock must be used, and advise the florists to try the common China (Bengal) rose as a stock, because it is a profuse bloomer and constant grower. I recommend it only to florists because it is not

hardy enough for open air cultivation, but it blooms and grows well in-doors.

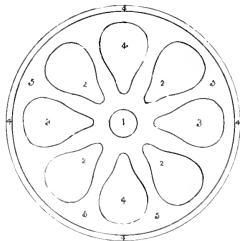
For cultivation in the open air I should recommend Multiflora (Polyantha), which is largely propagated from cuttings by the Dutch and is used by some English florists. It is a constant grower and very hardy. The type of the single Polyantha has resisted in my garden our very severe winters of 1871 and 1879.

JEAN SISLEY.

Monplaisir, Lyon, France, April 16, 1887.

THE BENNETT.—Mr. John Wiedy, of Baltimore, stated in a communication to the Gardeners' Club of that city that he had excellent success with the Bennett under the following treatment: "I use rotten rock soil, water very freely with liquid manure and cover the beds with from three to four inches of tobacco stems. My plants are very healthy and not subject to mildew. They send up three to four shoots to a plant and produce at least eight buds on each shoot. It requires a moist atmosphere."

OLD VERSUS YOUNG PLANTS.—Mr. F. Stielow, of Niles Center, near Chicago, has several houses containing Mermetts, Niphetos and Bon Silenes, in which the same plants have been grown for seven years with merely an occasional enriching of the soil in the solid beds in which they are growing. Niphetos may be here seen growing six feet in height with stout stems, and as vigorous as the Bon Silenes, all on their own roots. Mr. S. says that he cuts his largest crops from the older plants of the varieties named and prefers all the varieties except Perle des Jardins, after they have attained age. With the Perle he is obliged to renew the beds yearly to have good results.



Tulips at Lincoln Park, Chicago.

The 30,000 tulips at Lincoln Park, now present a blaze of color which is a brilliant herald of the beautiful bedding which will soon take their place.

A bed of tulips to appear to advantage must be planted with varieties which all bloom at the same time and are of about the same height, and one bed at the park planted in a design with several colors, came so evenly and presented such a handsome appearance that we give a diagram of the same with key showing the varieties used.

KEY.—1. Plant of Yucca gloriosa. 2. Yellow Prince (yellow). 3. Cottage Maid (rose and white). 4. La Reine (white). 5. Rembrandt (scarlet). A long bed which lays along a walk, and is used during the summer for ribbon designs is planted with seven lines of tulips whose colors contrast strikingly. The center line is Duchess de Parma

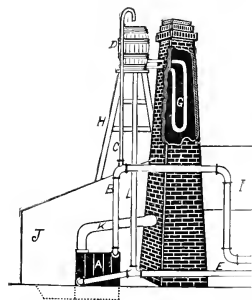
(bronze red edged with yellow); second line, Yellow Prince (yellow); third line, Rembrandt (scarlet); the border of La Reine (white).

The double varieties are also used with excellent effect but do not present the striking appearance of the singles.

The bulbs are here planted out from the middle to the last of October, and allowed to remain uncovered until they have had a few weeks of frost, after which they are protected by a mulching of coarse manure which is taken off the latter part of February or early in March the following spring.

Hot Water Under Pressure.

To suppose a great amount of pressure necessary to success, when heating by this system, is an erroneous idea. Pressure in no way affects the circulation, or adds to the intensity of the heat absorbed from the fire. The only object of applying pressure, is to raise the boiling point in the water, and thus charge it with the same amount of heat that steam is capable of holding. To illustrate: Water at sea level boils when charged with 212° of heat; but if pressure is applied, it will absorb and radiate as high a temperature as desired, without generating steam. Five lbs. pressure will raise the boiling point to 227° . Ten lbs. pressure will densify water to the extent of containing 240° of heat, or the same as steam when showing the same amount of pressure. More than 5 lbs. pressure is seldom maintained where steam is the heating medium, and as water with this pressure will radiate the same temperature, a constant pressure of 10 lbs. will be ample at all times to meet the demands of the pressure system.



A, boiler. B, flow-pipe. C, vent-pipe. D, expansion-tank. E, return pipe. F, chimney. G, heat-pipe, attached to expansion-tank. H, trestle to elevate pressure-tank. I, greenhouse. J, boiler-shed. K, smoke-flue, connecting boiler with chimney.

The best way to secure this amount of steady, unchanging pressure, is by connection with a stand-pipe and elevated expansion tank. As every 2-1-10th feet of water in a perpendicular column will give 1 lb. of pressure to the whole body below it, a stand-pipe 21 feet high will give a uniform pressure of 10 lbs. At the top of this water column attach a

supply tank of sufficient capacity to contain one-tenth of all the water in the radiating pipes—in order to provide for expansion—and you will have a constant and regular pressure.

To prevent a possibility of accumulation of air in the pipes, the highest place should be above the boiler, with a gradual fall all the way back to the bottom of the heater. If it is impossible to have the pipes thus located, and it is necessary to have dips and high places, supply such points with an air-chamber and small vent-cock to let the air off. But if from the high point above the boiler a half-inch vent-pipe extends to the top of the expansion-tank, this will



CUTTING PICK FOR STEMMING.

take off all air that separates from the water in process of heating, and also provide an outlet for steam, should the temperature of the water rise above the control of the pressure.

With this arrangement, air will seldom collect in any high places, but a small vent-hole or cock must be provided to let the air out when filling the pipes with water. It is best with this arrangement to connect the stand-pipe and supply-tank with the return pipe, near the bottom of the boiler. We use an appliance of our own invention—that is, a self-acting air-valve, which will let the air out, but retain the water; and any place that is likely to become an air-trap, if provided with this valve, will be free from air without attention.

For an ordinary-sized house, not containing more than 2,000 feet of 2-inch pipe, the expansion-tank may consist of a coal-oil barrel elevated on a trestle, constructed like the frame support of a windmill, and of sufficient height to afford the desired amount of pressure. The connecting pipe should be wrapped with straw, and an outside covering of canvass, or a box, to protect from frost. The expansion-tank should also have an outside jacket and tight cover for the same purpose. It will be found a good plan to locate the expansion-tank beside the chimney, then arrange an "U" pipe, shaped to drop down inside the stack, with both ends connecting to the barrel. One end should enter near the bottom, and the other a few inches higher up. This will supply sufficient heat to keep ice out. But if the water is strongly salted when first put in, this will not be necessary, for salt water will never freeze. If city water-works are not used, a small force-pump, attached to the pipe anywhere in the system, will afford means to keep the tank supplied with water. A small steam gauge, attached to the pipe anywhere in sight, will show by its pressure how high the water is in the pipe.

If water-works are used, a float-ball and cock will keep the tank constantly filled to the proper point.

The accompanying cut will illustrate the arrangement of pipe connections near the boiler as we have attempted to explain them. The rest of the pipe should be laid the same as for steam. The size we prefer is 2-inch pipe.

Evansville, Ind. J. D. CARMODY.

Cutting Picks for Stemming.

The cutting to suitable lengths of the large quantities of picks required in most floral stores where a great many designs are made up necessitates some little labor which has been saved and better work secured by a simple little device used by Frank Whitnall & Co., of Milwaukee, Wis. It consists of a vise so formed as to hold securely an entire box of picks which can then be sawed through the length of the box, cutting the picks to any desired length. The engraving shows the vise attached to a table by a thumb-screw and holding a box of picks ready for the saw. So much pressure may be

brought on the box by tightening the two levers that the box and contents can be sawn as readily as a block of wood.

Cheap Greenhouse Heating.

Last fall I built a small "north side" propagating house, and in looking up something to heat it with, I came to the conclusion, that something constructed after the manner described by Joseph H. Woodford in the *Florist* of March 1, 1886, would do, and as it answers the purpose so well, I thought it might be of some interest to your readers. I have a fire box constructed of 1½-inch wrought iron pipe, three feet long, one and one-half feet wide, and same height. Commencing at the lower front end where return comes in, the pipe runs along the side to back end, then turns with elbow across back end, then with another elbow to front end, then turning up over, with return bend, runs back and forth, around in the same manner till the desired height was reached; the same pipe was carried back and forth over the top, terminating at the upper front end in the flow, thus making a continuous pipe of about seventy feet through which the water must pass before leaving the fire.

The flow is of 2-inch pipe and rises to three feet above the boiler pipes, then turns and runs into and across end of house with a slight ascent, and where it turns along side of house I have an air cock, as this is the highest point of pipes. From here it branches into 2 and 1½-inch pipes, laid on the "down hill" plan the length of house and return, with a fall of two feet to where it turns to enter boiler again, in a 2-inch pipe. The expansion is taken from this pipe just before it enters the boiler (the lower front end), and is a 1-inch pipe rising five feet above heater, and terminating in a common iron hooped barrel, and this also is where pipes and boiler are filled.

Have run it this winter with about the same care and coal that an ordinary stove would require. The heater is enclosed in brick work, leaving an inch space between pipes and brick, except at back end, where a 3-inch space is left, and from this a flue is built over the top to front end where it enters the chimney, where there is a sliding damper. The cost was \$700. D. P. SMITH.

New Roses of 1886.

AMERICAN BEAUTY,

W. F. BENNETT,

THE BRIDE,

Also new Roses of the present year.

PAPA GONTIER,

COMTESSE DE FRIGNEUSE,

MARQUIS DE VIVENS,

and all other choice and standard varieties in very fine plants at lowest rates for first-class stock. Special quotations for large quantities on application.

J. N. MAY,

Rose Grower,

Union County,

SUMMIT, N. J.

Novelties in Roses.

NOVELTIES IN GERANIUMS.

The new French Geraniums for 1886 will be ready for shipment September 15. Twelve of the very finest out of this year's new ones:

Glory of France, Renan, Sergeant Bobillet, Arc-en-Ciel, etc.

The new Roses embrace some very promising varieties.

Comtesse de Frigneuse, Mad. David, Camille Roux, Claire Cochet, and others.

Send for descriptive list and wholesale price list of other choice stock.

HILL & CO.,

RICHMOND, IND.

THE GRAND NEW TEA ROSE

"Comtesse de Frigneuse"

This Rose is probably the best ever raised for florist's work; the bud is of "Niphetos" or "hennet" shape, color of "M. Neil" and rather larger than a duck's egg; a perpetual bloomer.

I am now booking orders for delivery from March to May, of this rose, as well as of the grand new Hybrid,

"CLARA COCHET."

All the new Roses of Autumn, 1886, will be ready for delivery in March.

My Catalogue of these, as well as my general Catalogue, free on application.

A splendid lot of "Perle des Jardins," "Niphetos," "M. Neil" in pots, always on hand.

Any quantity of ground plants of "Jacqueline," "Mme. Gabriel Lutzet," "Paul Seron,"

"Magna Charta" and similar kinds.

JAMES L. BOYSON,

CAEN (CALVADOS) FRANCE.

Mention American Florist.

SUPERB

New Roses

OF 1887.

ALEX. DICKSON & SONS

Reg. to announce their three Pedigree Seedling Roses.

H. P. Earl of Dufferin, undoubtedly the finest and a dark Rose in cultivation. Seven first-class certificates, the greatest number ever awarded to any one new rose. Chromo-litho, plate of this superb Rose, mailed free on application.

H. P. Lady Helen Stewart, Crimson-scarlet, a thoroughly distinct and new. For autumn bloom this variety is unsurpassed.

TEA Miss Elton Brownlow, a truly grand and free flowering Tea Rose. This variety is possessed of greater lasting properties than any variety with which we are acquainted. Awarded six first-class certificates.

PRICE 10s (ten shillings and six pence). Set of three varieties 27; (twenty-seven shillings) each. Descriptive Lists on application.

A great demand for these Sterling Roses being anticipated, it is particularly requested that all who require a supply will order as early as possible, to prevent disappointment.

The Royal Nurseries,

NEWTOWNARDS, Co. Down, Ireland.

1887.

ROSES FOR FLORISTS,

1887.

We offer the largest and most complete stock of Roses in this country. Straight 2½-in. plants, Propagated from thoroughly matured field-grown plants, and grown in ordinary soil without manure or any other stimulating material. They resist disease, start quickly, grow rapidly, and give best results.

ALL THE LEADING VARIETIES in large supply at very reasonable prices—Am. Beauty, Papa Gontier, W. F. Bennett, The Bride, Her Majesty, La France, Goul. Jaq., Perle des Jardins, Niphetos, etc. Also, M. Robert, Rose Gaudin, Souv. de Victor Hugo, etc.

THE NEW ROSES OF '86.—Comtesse de Frigneuse (Golden Pearl), Souv. de Victor Hugo, Marguerite de France, Camille Roux, Marguerite de Kamel, Flacon Bonidion, Comtesse de Chantal, Mad. David, Claudine Loret, Edmond de Bienville, Suzanne Blanche, Souvenir de Admiral Courbet, Comtesse George de Rosette Barson. Set of 14 for \$5, and very reasonable per dozen and hundred.

HYDRANGEA GRANDIFLORA.—A. Struella—Immense Stock, strong open ground plants, all sizes for sale. Also Japan Judas, New White Wiegela Candida, Wiegela Hortensis, Nerva, Japan Snow Ball (Viburnum plicatum), Rosa Rugosa, and a full line of all the best Hardy Shrubby and Climbing Vines, including Ampelopsis Velutina (Boston Ivy), Akebia Quinata, Sweet-Scented Honey-suckles, in variety, etc., etc.

Special Wholesale Price List free on application, to Florists, Market Gardeners and Dealers only. Lists priced, special selections made, correspondence solicited. Address,

THE DINGEE & CONARD CO.,

ROSE GROWERS,

WEST GROVE, CHESTER CO., PA.

A LARGE STOCK OF

FINE ROSES

For Bedding and Florists' use, including

AMERICAN BEAUTY,

SOUV. DE M. H. MAISON,

PERLE DES JARDINS,

QUEEN OF BEDDERS,

MERMETS,

SOUV. DE UN AMI,

NIPHETOS,

CORNELIA COOK

Also a fine stock of different varieties of Hybrids in 2½ to 3-in. pots.

For prices, etc., address

FOREST GLEN FLORAL CO.,

173 WABASH AVENUE, CHICAGO.

ROSES, BOUVARDIAS, &c.

We offer Bouvardia Vreelandii, \$3.00 per 100, 2-in. pots, Bouvardia Alfred Neuner, \$5.00 per 100, 2½-in. pots; Bouvardia Rosea Multiflora, \$5.00 per 100, 2-in. pots. This is the best pink for Summer and Winter bloom ever introduced.

ROSES.

Best Teas, our selection, good healthy stock, \$35.00 per 1,000. Address

NANZ & NEUNER,

LOUISVILLE,

KENTUCKY.

-ROSES-

We have of the following, Tea and Hybrid.

TEA ROSES, a fine lot of plants in 3 and 4-in. pots. They are all grafted last Fall, ready for shipping now on seedling large roots. Perle des Jardins, Niphetos, C. Mermet, 2½cts. each; \$3.00 per dozen, \$30.00 per 100. Souv. de W. F. Bennett, 3 cts. each, \$3.00 per dozen, \$25.00 per 100. larger plants, \$5.00 per 100.

*NEW *ROSES*

Bride, Sunset, Am. Beauty, Grace Darling, Souv. de Victor Hugo, Camille Roux, red, M. Sns. Blanche, pink; Marquis de Vivants, rose, 30 cents each, \$3.00 per dozen. Cash must be sent with order.

Schultheis Bros.,

P. O. Box 78. College Point, L. I.

10,000

ECHEVERIAS SECUNDA GLAUC,

Per 100, \$3.00.

CHARLES HEINZ, Sharon, Pa.

ROSES

Mermet, Niphetos, Bon Silence, Saffron and Isabella -sprout, from 2-inch pots, \$4.00 per 100.

CARNATIONS

Peerless, Hime's White, Detrow, Snow Flake, Alcantara and Hissable from 2-inch pots \$4.00 per 100. Rooted Cuttings of the above named varieties \$2.00 per 100.

JAMES HOGAN, Florist,

BRIDGEPORT, CONN.

THE NEW ROSES,

American Beauty, Bride, Her Majesty,

W. F. Bennett, Papa Gontier,

Also good plants of the best leading varieties of Teas, 11 Teas, 11 Perpetuals, and a general collection of greenhouse and bedding plants at a very low price. Send for prices.

JACOB SCHULZ,

1325 E. BROADWAY, LOUISVILLE, KY.

PAPER SEED BAGS

For Flower and Vegetable Seeds,

CLARK BROTHERS, Manufacturers, 61 Ann St. N. Y.

The Out-Flower Trade.

Latest Floral Fashions.

BY OUR NEW YORK CORRESPONDENT.

The choicest flowers and richest floral work, during the past fortnight, have been numerous, novel, and beautiful. The forget-me-not basket is among the loveliest. This is a large, round willow bowl-shaped basket of blue straw. In it plants of myosotis are bedded; at one side a cluster of moss-roses buds are placed. The handle is bound with blue satin ribbons, and on the opposite side from the rose cluster in the basket a bunch of myosotis and moss buds are festooned to the handle.

A clover-leaf of lily of the valley was made up by Siebrecht & Wadley last week, which was a souvenir of much beauty. A ship has been made of rush-straw, with trimmings gilded, which is a favorite steamer design. The hull of the boat is filled with Jacquemint roses, and the masts and rigging all trimmed with foliage. Hauff Bros. arranged a flaring basket with 111 hybrid roses, and in each side placed a cluster of forget-me-nots.

A pyramid of cornucopias is a conspicuous steamer gift that has had a run at Fred. Gordon's. The lower row of horns are filled with fruit, and the three surmounting contain roses of different colors. McConnell made for Mrs. Potter Palmer, who sailed Saturday on the *Aurania*, a vase-shaped straw basket, with handle, which contained roses and lilies arranged in clusters. The handle was tied with old-gold satin ribbon. Large canvas steamer bags have been brought to the florists for ornamentation. A bunch of flowers and foliage is fastened on one side, and the bag is hung up in the stateroom, where it is very useful as a catch-all. A steamer chair is decorated for a parting gift. It was garlanded around the woodwork with smilax and a slumber cushion of pink tulips was swung over the top. The fashion of decorating the state-rooms of friends sailing is indulged by those who can afford it. The pieces used for this purpose are composed almost entirely of foliage and immortelle designs are made up in many instances.

Surprises in floral gifts are quite the vogue on steamer board. The steward has flowers consigned to him, to present after the ship has passed a certain place, or when it is sailing by the "mooring buoy." A nest of arbutus was arranged to hold hot-house peaches (which are now 75 cents each), and this was a companion gift to a strawberry and rose design—both of which were sent to an invalid on shipboard. A mound of yellow roses was formed, and over this berries on the vine were festooned.

Mats of foliage, on which silver bowls of flowers are set, is the prevailing fashion for table ornamentation. Asparagus and adiantums are used for the mats, which are sometimes made square, with a tassel of lily of the valley on the corners, or some other fringing flower. Yellow daisies are much liked for a center blaze. Small mats of green are placed at each cover, to correspond with the center one. On these the floral favor or fairy lamp is placed. The latter are favorite, and their soft-colored light is a fine addition to the floral display. The richest dinner arrangement of the week was one given in honor of a bride. The table cover was white satin. A vine of helix and oncidiums, with asparagus foliage, was laid diagonally across the board. The favors were small breast-knots of the same flowers and foliage.

Some charming luncheon decorations have been accomplished for the young-girl assemblies which are so frequent before families break up to go into the country. One where moss roses were used was the choicest. These were placed in a round center basket, which stood in the center; at each end were groups of the new ribbon-bound-handled baskets, that turn down like a "dule's collar," which are filled with long-stem moss buds. They were distributed to each lady when luncheon was over.

The newest style for room decoration is using floral rugs, which are hung over walls and bannisters in oriental fashion, or laid on the floor. This sort of embellishment is very elaborate and expensive, but extremely elegant. Pansies are employed with gorgeous effect in patterning the floral rug, while many are made of roses or tulips. A large and of this kind was composed of magnolias and peonies; it was suspended over a rod of small yellow daisies, and was altogether highly effective. A large rug of roses for a bridal party to stand upon, produces a luxurious finish to the space covered by the canopy or grouping of greenery. Thorley made a rug of yellow pansies, edged with a wide band of Faust pansies, last week. It was a splendid cloth of gold, and the most effective piece in a wedding decoration. These rugs of bloom are a grand design for altar ornamentations, and show off handsomely in halls. A wedding, to take place in June, out of doors, will have six rugs of roses in use on the lawn where the party will assemble.

The wedding-wreath easel is a lovely design, fashionable for weddings, and used in room decorations. A large easel of gilt has on it a panel of Faust pansies. On the panel, in relief, is a wreath of pale pink roses, tied together with a sash of the same color. The Browsers make a table screen, which is a rich piece to place on a piano or cabinet. It has three panels, one of white pansies, on which is a splendid spray of "black" roses, or rather those of dusky crimson; a blue pansy panel, decorated with a bunch of moss-roses buds and fruit blossoms; and a yellow pansy panel, on which is a cluster of Paul Neyrons.

Fine effects are made with gladioli in ornamenting apartments. A few long spikes placed in a tall vase are very striking and conspicuous. The sun-ray effect made with them over a window or floor cornice, is popular. At a golden wedding, last week, over every door and window was this sun-ray made with yellow gladioli. There was a lambrequin of yellow pansies on the mantels, and a canopy bell composed of Perle roses and smilax. The wedding-cake and chief dishes on the table where the collation was served, stood on mats of yellow daisies.

Corsage bouquets for street wear are composed of shrub blossoms or ranunculus from swamps. Wild violets are preferred to those cultivated, the latter being very poor. For mourning wear, two trusses of Dutch hyacinth, each being a different shade of purple, are pinned close together on the waist. The corsage bunch worn at coaching parties is very much smaller than it has been for several years. It is festooned high upon the corsage, near the left shoulder.

Narcissus poeticus is very much in request, as the sprig it is introduced in side-clusters, in hand bouquets of roses, and is an admirable flower for this purpose. Bridal bouquets of garlandus, with a side cluster of Narcissus poeticus, are about

the most stylish. Brides-maids carry immense bunches of roses, with either a side cluster of white lilacs, daisies or mignonette.

Brides who are married in walking costume are wearing bonnets composed entirely of natural flowers. Little hats are made of white violets, of daisies, of orange-blossoms, and *Spiraea japonica*. The brides-maids wear hats of flusion, or straw trimmed with a spray of natural flowers. In time floral embellishments will be obliged to include a milliner as well as some one competent to garnish gowns.

Boston.

The spring is about ten days later than last year.

Decoration Day orders are piling up. The prospects are favorable for a big trade.

Doyle's window is a whole floral exhibition in itself now-a-days. Mr. Long, formerly of Klunder & Long, New York, is with Doyle this season.

Mr. Joseph Collins, for the past twelve years head gardener at Mt. Auburn Cemetery, died on April 30, of consumption. Mr. Collins was a man of obliging and genial disposition, and was a general favorite among the gardeners. He will be missed.

The May Exhibition of the Massachusetts Horticultural Society took place on Saturday, the 7th inst. The show was not as large as it should have been, and competition in some classes was at its minimum. One of the best things shown was a basket of superb forced strawberries, from James Comley. The next important exhibition of this society will be the rhododendron show, which is set for Saturday, June 4.

The Gardeners' and Florists' Club is flourishing, and is fast gathering in the representative men in the business here. At the last meeting a spirited discussion took place over "The six best hardy and the six best tender roses" for florists use. Opinions differed widely, and almost all the old sorts had their advocates, while the newer varieties were handled rather gingerly, there being an evident tendency to put some of them on probation for a little longer time. W. J. S.

Chicago Retail Prices.

Perles and Niphotos, \$1 a dozen; Mermets, \$3.50; Jacques, \$2; Hybrids, \$3; Bon Silens, 75 cents; tulips 75 cents to \$1; carnations, 35 cents, and Lilium candidum \$1.50 a dozen.

HANDSOME FLORAL DESIGN.—Mr. R. E. Shupholt, Chatham, N. V., sends us a photograph of a handsome floral design gotten up by him. A frame of polished ivy leaves encloses a field of live green moss on which is artistically placed a bunch of callas with their own foliage with a few orchids and hyacinths, tied with satin ribbon. The whole effect is very rich.

SAN FRANCISCO.—One hundred dollars, in six cash prizes, were offered at the floral exhibition held at the Union Club building, April 28-30. At the funeral of W. W. McElmurn, foreman of the composing room of the *San Francisco Chronicle*, several unique floral designs were seen. They included a floral type "case," with an arch above, bearing the words: "No more copy." and an empty copy book; a design representing a page of the paper on which was lettered, "This last form," another page with turned column rules, a proof press, and a large number of society and other designs.

THE AMERICAN FLORIST

Subscription \$1.00 a year, To Europe, \$1.25.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column \$14.00.
Cash with Order.**No Special Position Guaranteed.**Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.**No reduction made for large space.**The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.Advertisements for June 1 issue must
REACH US by noon, May 25. Address.**THE AMERICAN FLORIST CO., Chicago.****Catalogues Received.**A. R. Reinenman & Bro., Pittsburgh,
Pa.; plants; T. W. Lotz, Watertown, Wis.
plants; Jos. Pienty, New York, horticultu-
ral building; B. A. Elliott Co., Pitts-
burgh, Pa., roses; Crozy Aine, Lyon,
France, canna novelties; Laurent Carle,
Monplaisir, Lyon, France, carnations;
Michel Plant and Seed Co., St. Louis,
plants and seeds; W. T. Bell, Franklin,
Pa., plants.THE NURSERYMEN'S ASSOCIATION will
hold its twelfth annual meeting in
Chicago, June 15-16-17, next.**New York Retail Prices.**Perles, Niphetos, souvs and Jacques,
\$1; Mermets, \$2; Bennetts and La France,
\$1.50; choice hybrids, \$3; Bon Silenes,
75 cents; carnations, 50 cents; lily of the
valley, 75 cents; longiflorum lilies, \$3;
tulips and narcissus, 75 cents a dozen;
lilac, \$1.50 a bunch. Asparagus, \$6 a
dozen.

DOUBLE GLAZING.—Your genial and
versatile correspondent, J. N. May, calls
on me for information about double glaz-
ing. It is a benefit in a climate where
40° below zero is not uncommon. It adds
to the temperature of a house from 10° to
12°. There is trouble in permanent
double glazing from dust getting between
the glass. We have overcome that defect
by use of neat light sash that de-
fect without putting, and fitted in the in-
side. They can easily be taken off and
cleansed, say about once in two years.
Double glazing in a measure prevents
drip. We grow here orchids, roses, ca-
mellias, etc., in the different houses all
less or more double glazed. I should say
double glazing was entirely unnecessary
where the temperature did not fall lower
than 15° to 20° below zero.

JOHN T. BORLAND,

St. Johnsbury, Vt.

Floral Wonders from Japan.

A New York florist has just succeeded in get-
ting a collection of thirty varieties of chrys-
anthemums direct from the famous garden of the
Mikado, which heretofore all collectors of this
flower have held exclusive. The colors of
the blossoms are as marvelous as are their forms.
Many flowers measure three inches in circum-
ference. Some are shaped like parrots, their
treatly petals forming tassels.

In the garden of the Mikado the chrysanthemum
is the leading flower, it being the emblem
of Japan, as the rose is of England, and the
lily of France. In this garden chrysanthemums
are trained to represent animals—
scarlet cows, golden horses, white elephants are
the taste of Japanese royalty.

Everyone grows chrysanthemums in Japan
When a rural swain desires to pay his attentions
to some dark-eyed daughter of the flowery land
he places a chrysanthemum on her doorstep. If
she waters and cares for it he may come again,
but if it is neglected and left to wither, so must
the hopes of the unfortunate lover.

—V. S. JON.

[Possibly the plants we have been
growing for chrysanthemums are but delu-
sions after all. In these days of substitution
it is dangerous to be safe, and of
course the reporter knows what he is
talking about; he always does.—ED.]
Wholesale Markets.**Cut Flowers.**

BOSTON, May 16.	
Roses, Teas.....	1.00
" Fancy.....	2.00 to 3.00
Carnations.....	25 to 60
" Single.....	5.00
Lily valley.....	4.00
Tulips.....	4.00
" Double.....	2.00
" Single.....	2.50
Stocks.....	2.00
Adiantum.....	1.50
Market overstocked.	

NEW YORK, May 16.	
Roses, Perles, Niphetos.....	3.00
" Bennetts, Souvs.....	3.00
" Bon Silenes.....	1.00 to 2.00
" Mermets.....	3.00
" Cocks.....	3.00
" choice hybrids.....	10.00
Carnations, long stems.....	1.00 to 2.00
Tulips, short stems.....	3.00 to 4.00
Lily of the valley.....	3.00 to 4.00
" short stems.....	3.00
" double.....	4.00
" single.....	4.00
Narcissus.....	4.00

CHICAGO, May 16.	
Roses, Perles, Niphetos.....	4.00
" Teas.....	2.00
" Inquies.....	6.00
" Mermets.....	12.00
Carnations.....	2.00
Lily valley.....	2.00
Callas.....	10.00
Convolvulus.....	20.00
" double.....	20.00
" single.....	20.00

PHILADELPHIA, May 9.	
Roses, Teas.....	3.00
" Perles.....	3.00
" Inquies.....	3.00
" Mermets, Bennetts.....	3.00
" Brides, La France.....	3.00
" Jacques, Cocks.....	3.00
" choice hybrids.....	30.00
Carnations, heliotropes.....	1.00
Lily valley.....	5.00
Callas.....	10.00
" double.....	25.00
" single.....	25.00

Wm. J. Stewart,

WHOLESALE DEALER IN

CUT FLOWERS,

67 Bromfield St., BOSTON.

Consignments solicited.

W. S. ALLEN,

WHOLESALE FLORIST

940 Broadway, N. Y.

Price Lists mailed to applicants.

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WHOLESALE - FLORIST

No. 11 West 27th Street,

Near Broadway, NEW YORK.

Consignee of the principal growers about New York.
Lilies of the Valley and Lilies at all times.

JOHN J. PERKINS,

Wholesale and Commission

FLORIST

69 West 28th Street,

(Telephone No. 673, 38th St.) NEW YORK

Branch, 38 S. 10th St., Phila., Pa.

Greenhouses, Cresskill, N. J.

John Breitmeier & Sons,

Cor. Gratiot and Miami Aves., DETROIT,

Wholesale Cut FlowersRoses, Carnations, Tulips, Lily of the Valley, Jon-
quills and good assortment of other choice flowers
shipped in any desired quantity on short notice.

THOS. YOUNG, JR., & CO.

Wholesale**FLORISTS**

INCORPORATED 1885.

23 West 23d Street,

NEW YORK.

GEORGE MULLEN

—WHOLESALE FLORIST.—

17 CHAPMAN PLACE, (Near Parker House)

BOSTON, MASS.

Orders by Mail, Telephone, Telegraph or Express
promptly attended to. Night despatch should
be sent at full rate to insure delivery for
early morning trains. Store open from 7 a. m.
to 6 p. m. Return telegram if order cannot be filled,
or if desired in any case. Mention Am. Florist.

J. C. VAUGHAN,

Wholesale Cut Flowers

42 LA SALLE ST., CHICAGO.

Only wholesale store in the U. S. open
day and night. Code, shipping instruc-
tions and all like particulars supplied on
application. If you buy flowers write me.**WELCH BROS.,**

WHOLESALE FLORISTS,

165 Tremont Street, BOSTON, MASS.

We make specialty of shipping choice Roses and
other Flowers, carefully packed, to all points in
Western and Middle States.
Return Telegram is sent immediately when it
is impossible to fill your order.**HAMMOND & HUNTER,**

Wholesale dealers in

Cut Flowers and Florists' Supplies

61 West 30th Street, NEW YORK.

CHAS. E. PENNOCK,

WHOLESALE DEALER IN

C-U-T & F-L-O-W-E-R-S

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**OUR NEW TRADE
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6,000 Names of (Live)

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CUT FLOWERS.

1237 Chestnut Street, PHILADELPHIA.

Consignments Solicited. Special attention paid to
shipping. Mention AMERICAN FLORIST.

C. STRAUSS & CO.,

CUT -:- FLOWERS

Stall, 249 Centre Market,

WASHINGTON, D. C.

All orders shipped c. o. d., unless otherwise agreed.
Telephone connection with our greenhouses.**CUT FLOWERS**The choicest Cut Flowers at lowest market rates
shipped C. O. D. Telephone connection. Use A. F.
Code when ordering by telegraph. For prices, etc.,
Address,

J. L. DILLON, BLOOMSBURG, PA.

READ THE EVIDENCE!

The **PURITAN** is the most valuable and remarkable Rose of the age. No one disputes this after visiting Mr. Evans' houses. Mr. Elwanger, of Elwanger & Barry, says so, and so do all the rosarians who have seen the rose, and it is the TRUTH.

A New Market for American Cut Flowers.

Blooms of the **PURITAN** Rose Successfully Shipped to England

And Capture Highest Honors in London after being cut 12 Days.

The keeping qualities of the Puritan Rose is remarkable. To test this, the B. A. Elliott Co. of Pittsburgh sent two boxes of buds and full blown roses to London. The result of the experiment is fully shown in the following correspondence. The Roses were cut on the 1st of April, and were shipped from New York on Saturday, April 24, on the steamer Euribia.

Cablegram from Wm. Paul & Son.

LONDON, April 11, 2 o'clock.

CHAS. F. EVANS, Philadelphia:
Blossoms of Puritan Roses, per steamer Euribia, received in fine condition. Wm. PAUL & SONS.

Letters from Wm. Paul & Son.

LONDON, ENGLAND, April 11th, 1887.

To B. A. ELLIOTT Co., Pittsburgh, Pa.

Dear Sirs:—The blooms of the Puritan Roses arrived at 10 o'clock this morning. We write by first post to inform you that they came in beautiful condition—not a petal fallen, and the tubes were full of water which was perfectly fresh and sweet. We do not perceive any difference in the condition of the two parcels, as they appear to have traveled equally well.

There is a meeting of the Committee of the Royal Horticultural Society to-morrow, when we shall exhibit them and report to you again. We are, dear Sirs,

Yours truly,

WILLIAM PAUL & SON.

LONDON, ENGLAND, April 11th, 1887.

B. A. ELLIOTT CO.

Dear Sirs:—You will be pleased to hear that the Rose "Puritan" was awarded a first class certificate from the Royal Horticultural Society in London yesterday. This is the highest award the society gives for a new flower.

We received your duplicate letter yesterday morning, and we have nothing more to communicate, having telegraphed to you on Monday as soon as the office was open, (being closed part of the day, being bank holiday), and written you by first post the same day.

The flowers were as fresh at the exhibition as those sent from our nurseries growing on plants in pots.

The certificate awarded was given by a unanimous vote of the committee.

The "Puritan" is, in my opinion, the best white forcing rose for all purposes.

With compliments and best wishes, I remain, dear Sirs, Yours faithfully, WILLIAM PAUL.

Extract from "The Garden," London, April 12th, 1887.

The meeting of the Fruit and Flower Committee, held in the conservatory, was rendered remarkable, gay and effective by the large groups of Narcissi, staged by Messrs. Ware, Barr & Son, and Collins & Grahall. It was also rendered particularly attractive by the new feature of cut roses from America, which were staged in excellent condition; and by

Go and See The Rose.

numerous interesting and showy groups from various exhibitors.

The following first-class certificates were awarded, viz., to Rose Puritan. Plants in flower and cut blooms of this rose were staged; they had been sent from America to this country for exhibition, eleven days being occupied in transit; they arrived in excellent condition. The foliage of this variety is stout and of a deep metallic green; the flowers large, creamy-white, of exquisite form; petals round and of good substance; whilst its staying properties may be judged of by the journey to which they had been subjected. One dozen of the cut blooms had been enclosed in an hermetically-sealed box, and an equal number travelled in tubes of water in an ordinary case box; there did not, however, appear to be any appreciable difference in their condition. Judging by the examples staged, it is a great improvement. It was exhibited by Messrs. W. Paul & Sons, of Waltham Cross, by whom, we believe, it will be distributed in this country.

Extract from a Letter written by Vernon H. Brown, General Agent Cunard Steamship Line.

Parson's seeming want of enthusiasm yesterday. Without opening the box I assumed the flowers were lovely, and contented myself with that expression. Upon the box being opened by Mrs. Brown, she pronounced them superb.

The old Puritan stock need not blush for their namesakes; they under the sturdy vigor of a Miles Spanish with the grace and loveliness of a Princesilla, and lose nothing by the rose hedges of their red sisters who were in their suite.

The Puritan is the loveliest Rose I have ever seen. I will take all the blooms you can spare of it from now until next fall at 50 cents each.

CHAS. F. KENDRICK.

A Pointer.

The **PURITAN** is the greatest Rose in the world and we know it, and intend to have every plant buyer in America know it also. Commencing next fall we will advertise the merits of the **PURITAN** in the most complete and systematic manner in all the principal magazines and newspapers in the United States. The demand created will be enormous; every plant buyer will want from one to a dozen **PURITANS**. The shrewd and enterprising florist will prepare for this demand by growing stock for. Mr. Peter Henderson says: "the demand will be so great that prices will not be greatly reduced."

A Few of the Orders for Puritans.

These gentlemen have seen the Rose and visited Mr. Evans' houses. They know what they are doing.

Robt. Craig & Bro., Philadelphia,	4,000 plants.
W. H. De Forest, Summit, N. J.,	1,500 "
John Henderson, Flushing, N. Y.,	1,000 "
Peter Henderson & Co., New York,	1,012 "
Otto Andrae, Central Valley, N. Y.,	1,000 "
E. M. Wood & Co., Boston,	1,000 "
C. Straus & Co., Washington, D. C.,	1,000 "
Thos. J. Slaughter, Madison, N. J.,	500 "

The **PURITAN** has all good qualities, and positively not a fault. Price list and circular sent on application. A large photograph of a house of it for 25 cents.

The plants of **PURITANS** we are sending out are remarkable for their health and vigor; many of them are in 3-inch pots instead of 2½-inch as advertised, and all are thoroughly well established and ready for immediate putting up.

We have the largest and finest stock of **American Beauty** in the country, and are prepared to make special prices on it. Also, the best and healthiest stock of **Papa Gontier, The Bride, W. F. Bennett**, and all our flower varieties of Roses.

Trade list sent on application. Send list of your wants for estimate.

B. A. ELLIOTT CO.

PITTSBURG, PA.

BULBS! IMMORTELES!**J. A. DEVEER,**(Formerly of De Veer & Boukamp)
Removed to 19 Broadway, N. Y.

SOLE AGENT FOR

THE GENERAL BULB CO., - Vogelenzang, (Holl.)
LS. BREMOND FILS, - Paris, - Ollioules, (France).**DUTCH BULBS.**Roman Hyacinths, Paper White and Roman
Narcissus, Lilium Candidum, Frezias, L. Har
rieti, Longiflorum, etc., for Fall delivery.**NOV. READY.**I offer for prompt delivery without engagement:
Gladioli, choice mixed, all colors, Per 100, Per 100.

large bulbs	..... \$12.00	\$1.50
Gladioli, scarlet, large bulbs	..... 8.00	1.00
" shades of scarlet and crimson, 10.00	..... 1.25	
" pink and variegated, large bulbs 15.00	..... 1.75	
" white and light, large bulbs 20.00	..... 2.00	
" yellow yellow greenish, large bulbs 24.00	..... 2.00	
Hyacinthus Canadianus, large bulbs..... 25.00	..... 2.00	
Pearl Tuberoses, large bulbs..... 12.50	..... 1.40	
L. Auratum, large bulbs..... 9.00	..... 1.00	

Mention American Florist.

*** BULBS *****RICHARDIA ALBA****MACULATA.**Dry Roots, Extra Strong, se-
lected \$12.00 per 100.
Dry Roots, Extra Strong,
selected \$20.00 per 100.
Good Flowering Roots \$8.00
per 100, \$40.00 per 1,000.**GLADIOLUS.**Choice American Hybrids,
\$25.00 per 100, \$250.00 per 1,000.**GLADIOLUS NAMED AND IN
SEPARATE COLORS**
Prices on Application.**NICHEL****Plant & Seed Co.**

718 Olive St.,

St. Louis, Mo.

Mention American Florist.

**Dutch Bulbs.****R. van der Schoot & Son.**HILLEGOM (Near Haarlem)
HOLLAND.

ESTABLISHED 1830.

GROWERS OF

Hyacinths, Tulips, Crocus
Narcissus, Lilies, Etc.Intending purchasers, before or-
dering Bulbs write us for a
Catalogue.

Mention Am. Florist.

AUGUST RÖLKER & SONS,
NEW YORK.

—Supply the Trade.

Dwarf Pearl, Double Italian

—AND—

Diamond Pearl Tuberoses.We offer a first-class lot of the above sorts, war-
ranted true to name and first-class blooming bulbs
at \$2.00 per 100, \$10.00 per 1,000, in lots of 500 and
over at \$9.00 per 1,000, second size bulbs 50 to 75 per
cent will bloom first year price \$1.00 per 100, \$5.00 per
1,000. Offers and smaller bulbs suitable for growing
large bulbs for another season's sales of the follow-
ing varieties: Dwarf Pearl, Double Italian, Diamond
Pearl and Early Single Orange flowered, all war-
ranted true to name. Price large size offsets and
small bulbs 50 cts. per 100, \$5.00 per 1,000. Smaller
size offsets 25 cts. per 100, \$1.00 per 1,000. Special low
rates on 25, 50 and 100 bulb lots, offering a rare chance
to secure your bulbs at a nominal price. Also strictly
single flowered variegated foliage plants, first-class,
at \$3 per 100, \$25 per 1,000, offsets of same at 25
per 1,000. Address:**JOSEPH W. VESTAL,**
Little Rock, Ark.

We have

FINE STOCKS

OF THE FOLLOWING:

CHRYSANTHEMUMS In Great Variety.**GERANIUMS** Double and Single, very best kinds.**HELIOTROPES** 6 Fine Kinds.**FUCHSIAS** 10 Best Old Kinds.**FUCHSIAS** 8 Best New Kinds.**Begonia Metallica. Abutilon Thompsonii Plena.**Write us if you want any of the above, as all the plants are strong, in fine condi-
tion and sure to please.**V. H. Hallock, Son & Thorpe,**
EAST HINSDALE, NEW YORK.**Seeds** GOOD THINGS FOR THE
Garden & Greenhouse BulbsFresh stock of Standard Sorts and Novelties in
Flower Seeds from Paris and Erfurt.A large stock of Pearl Tuberoses extra size and
well-kept Bulbs.Lily Auratum, Gladiolus, Dahlias, Caladium
Esulentum, large bulbs, Clematis, and a full line
of Spring Bulbs and Plants.**JAMES KING,**

170 LAKE ST., CHICAGO.

F. E. McALLISTER,

—WHOLESALE DEALER IN—

Seeds For the Florist
Market, Garden
and Farmer. **Requisites** Such as Baskets, Im-
mortalities, Grasses,
Mosses, Bouquet Pa-
pers, Pansies, etc.
Flowers, etc. **Bulbs** For the Green-
house or Gar-
den.

22 Dey Street, - - - NEW YORK.

J. J. Van Loghem,

HAARLEM,

Holland.

[ESTABLISHED 1852.]

**DUTCH
BULBS.**If desiring really first-
class roots at moderate
prices, write for Price
List.
(Wholesale only.)**SEGERS BROTHERS,**
Growers of
HOLLAND BULBS

Such as

**Hyacinths, Tulips, Crocuses, Narcissus, Liliums, Lily of
the Valley, Anemones, Ranunculus, Spiraea, Etc., Etc.**References about quality etc., to several United States Florists
and Seedsmen.

Send for Wholesale Catalogue.

LISSE, NEAR HAARLEM, HOLLAND.

WHOLESALE ONLY.

NO AGENTS.

Bulbs! Bulbous Roots!**HULSEBOSCH BROS.,**Overveen, near Haarlem, Holland.
The only growers of whose firm there resides a
member in the States.Travel list free on application. Address
P. O. Box 3118, New York City.
Hyacinths, fine mixed, per 100, \$1.00;
Tulips, fine mixed, per 100, \$1.00.**DUTCH BULBS.****E. KRUIFF,** Sassenheim, near Haar-
lem, Holland.

ESTABLISHED 1830.

Wholesale grower of Hyacinths, Tulips, Crocus,
Narcissus, Lilies, Spiraea, Lily of the Valley, etc.
Catalogue free on application. Lowest prices and
finest quality.



A Great Point in favor of the . . . PURITAN ROSE

is its remarkable keeping qualities.

The best evidence we can offer of this is the Cablegram given below. The Roses referred to here were cut at Mr. Evans' place, April 1st, and reached London on the 11th, ten days after being cut. Although there were two boxes, every bud and bloom was received in perfect order.

B. A. ELLIOTT CO.

PITTSBURG, PA.



Form No. 3.

CABLE MESSAGE.

THE WESTERN UNION TELEGRAPH COMPANY.

All CABLE MESSAGES received for transmission must be written on the Message Blanks provided by this Company for that purpose, under and subject to the conditions printed thereon, and on the back hereof, which conditions have been agreed to by the sender of the following message.

THOS. T. ECKERT, General Manager.

NORVIN GREEN, President.

NUMBER	SENT BY	REC'D BY	CHECK
23	Es	S	London

Received at

To Chas F. Evans

April 11 20th 1887

Philadelphia

Blooms of Puritan

Roses per Hamur Etrousa received
in fine condition

Wm Paul & Son

Disastrous Hail Storm at St. Paul.

We have had our annual hail storm. It came May 1, and resulted in a heavy loss of glass, and in some instances many plants were ruined. The principal sufferers were C. F. Lemke and Mrs. W. Lemke, about 4,000 feet of glass each; C. Fleischer, 3,000; Louis Edelsen, 2,000; A. H. Bunde, 2,000; C. F. Mantey, 2,000—also plants badly injured; C. F. Haupt, 1,500; R. Seeger, 800; E. I. Blum, 1,000; Mr. Fagus, 1,500; Mr. Ringroff, 1,000; A. King, 1,500. Venzke Bros. and the Reform School, who lost heavily last year, escaped this time with a loss of only about 700 feet each. Ball, in west St. Paul, lost all he had, 600 feet. Chas Underker lost about 400. The Oakland cemetery lost all on the west side of the house—1,000 feet, and sustained a great damage to plants as well. H. Schulte lost about 1,000, and H. Krinkle 500.

The total loss for this city foots up to more than 30,000 feet, to say nothing of the market gardeners, who lost heavily in both glass and plants. The storm did not strike Minneapolis quite so hard, though considerable glass was broken there. As far as learned there was no insurance. C. F. Mantey intends to go out of business and is offering his place for sale.

The objection florists in this section of the country have to the F. H. A. is that it does not insure against loss of plants as well as glass. They think that if they can stand the loss of time and plants they can also stand the first cost of the glass. It seems to some of us that an association might be organized on the plan of the companies now insuring farmers here against loss of crops by hail. The general trade outlook for spring is quite promising.

AUG. S. SWANSON.

A RARE OFFER

—OF—

New Plants of 1887.

100 New Plants for \$12.00.

GERANIUMS Older varieties, a fine collection, \$5.00 per 100; \$25.00 per 1,000, without names; \$30.00 per 1,000.

FUCHSIAS *Crepuscula*, *Penelope*, *Lamendula*, J. J. Rousseau, *Mazoeppa*, *Duke of Albany*, \$4.00 per 100, \$30.00 per 1,000.

FUCHSIAS Older varieties, dbl. and single, \$4.00 per 100, \$25.00 per 1,000. 250 at 1,000 rates.

COLEUS Finest Varieties, including *Firebrand* and other bedding strains, \$5.00 per 100, \$25.00 per 1,000.

GERANIUMS Mt. Salicora, fine plants, \$5.00 per 100.

CHRYSANTHEMUMS Finest variety, \$5.00 per 100, \$25.00 per 1,000.

CARNACTIONS Finest varieties, \$5.00 per 100; \$25.00 per 1,000.

W. P. Simmons & Co.

GENEVA, OHIO.

INDESTRUCTABLE BENCHES

Can be made by using

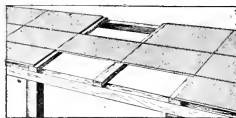
SLATES

THEY ARE AS

Cheap as Wood

—AND—

Every way Better



They will last a lifetime and you will not be troubled with fungus from rotting wood. They transmit bottom heat better than wood.

Price, \$22.50 for 1,000 sq. feet of surface.

SLATES 1-3 IN. THICK, 20, 22, 24 INCHES LONG.

AGENTS:

NORTHERN NEW JERSEY, JOHN N. MAY, Summit N. J.
NEW YORK AND NEW ENGLAND, SIEBRECHT & WADLEY, 409 Fifth Ave., N. Y.

FROM PITTSBURGH WEST, HILL & CO., Richmond, Ind.

CRAIG & BRO., 40th and Market Streets, Philadelphia, Pa.

CHAS. S. PRICE, Lansdowne, Pa.

Mention American Florist.

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NURSERYMEN,
AND SEEDSMEN,

OF THE

UNITED STATES AND CANADA.

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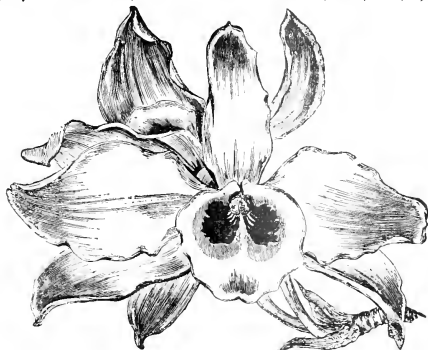
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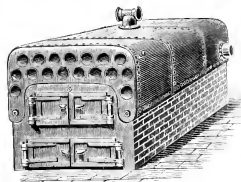
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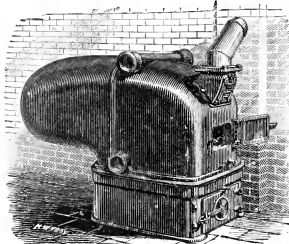
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Index to Advertisers.

Advertising Rates, etc.	401
Allen, W. S.	401
American Florist Co.	408
Baker, F. A.	407
Barr, John, Bos.	407
Bathur, John R.	408
Bayer-Schiller, M. M. A.	408
Co.	410
Benz, Albert	408
Biano, A.	411
Bloomington (Flower)	411
Box Nursery	407
Boyd, Wm. A.	407
Boydson, James L.	407
Bracke & Co.	407
Bredtner, John, A.	408
Sons	408
Brenneman & Peter	408
Son	408
Bridgford, Herman	408
Burrow, J. H.	408
Hurton, Arthur M.	408
Chamock, W. J.	408
Chapman Bros.	407
Clark Bros.	407
Coles, W. W.	407
Deakin, Robt. T. & Co.	407
Desmond, Wm.	407
De Voe, J. A.	407
De Voe, Peter	407
Dickinson, Albert	407
Dickson, A. A. & Sons	407
Dillon, J. L.	407
Dodge & Conard Co.	407
Dyer, Henry A.	407
Elliott, R. A. Co.	407
Edis, Ross	407
Exwell, W. S. & Son	407
Exeter Machine Works	407
Fink & Co.	407
Falwiler, P. C.	407
Gasser, J. M.	407
Goldings, A.	407
Griffith, Jas.	407
Hales, H. W.	407
Hallack & Hunter	407
Hammill & Thorpe	407
Hammill's Sing Shop	407
Harold, Thos. G.	407
Heinz, Chas.	407
Henderson, Peter & Co.	407
Hennecke, C. & Co.	407
Higley, Henry C.	407
Hill & Co.	407
Hilborn, W. T.	407
Hitchings & Co.	407
Hosker, H. M.	407
Jordan, James	407
Imhofschmidt Bros.	407
Jess, J. H.	407
Jensen, Ed.	407
Jewett, Z. K.	407
Joesten, C. H.	407
Keges, John	407

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Vol. II.

CHICAGO AND NEW YORK, JUNE 1, 1887.

No. 44.

THE AMERICAN FLORIST

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Entered as Second-class Mail Matter.

Published on the 1st and 15th of each month by
THE AMERICAN FLORIST COMPANY.

GENERAL OFFICES, 54 La Salle Street, Chicago
EASTERN OFFICE,
Room 51, Vanderbilt Building, New York.

All communications should be addressed to the
general office at Chicago.

SOCIETY OF AMERICAN FLORISTS.—Robert Craig, Philadelphia, Pres.; J. S. Vaughan, V. Pres.; M. A. Hunt, Treas.; Edwin Lonsdale, Chestnut Hill, Philadelphia, Sec'y. The third annual meeting at Chicago, August 16, 17 and 18, 1887.

THE NURSEYMEN'S ASSOCIATION.—The twelfth annual meeting of this organization, which occurs at Chicago, June 15-16-17 next, promises to be an interesting one to that trade. Secretary D. Wilmot Scott, Galena, Ill., will furnish programmes, railroad rates, etc., on application.

ARE YOU arranging your business matters in such shape that you may safely leave home to attend the third annual meeting of the Society of American Florists at Chicago next August? Those who have attended previous meetings of the society will need no arguments as to the value of the meetings to every one who attends, and to those who have not yet been present we would say: Come to Chicago next August, and you will be well satisfied with the benefits which will accrue to you from your attendance.

DECORATION DAY.—We would like for next issue reports from all sections, giving the amount of the Memorial day trade in flowers and plants. Send in a short report from your city or town covering the following points: Was the total amount of business in excess or less than that of last year? Was the demand for made pieces larger or smaller in proportion to the amount of cut-flowers used? Was the demand for plants more or less in proportion to that for cut-flowers or designs? A complete report cannot but be of interest.

SUBSCRIPTIONS for the AMERICAN FLORIST may be left with any of the following:

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Business Methods.

For any business to be thoroughly successful, the head of it must be systematic, careful and zealous in all his methods. Good judgment must be exercised in all calculations concerning a future market, and rigid economy practiced in all expenditures, combined with a close inspection of the balance sheet. Careless oversight will invariably result in failure and financial ruin.

These rules hold good with the florist as with any other business man, yet it is safe to assume that most of the florists conduct their business with but little regard to sound mercantile principles, especially being lax in all matters pertaining to systematic book-keeping.

Florists, as a rule, are men that have had but few opportunities of becoming acquainted with the details of any extensive business. Accustomed from boyhood to hear much stress placed upon the necessity of a thorough practical experience as to all that will conduce to a flourishing condition of the plants under their charge; often commencing their knowledge of gardening in private establishments where the urgency of pecuniary success is not the impelling motive, and where a close control of expenditures is not usually observed (or, if beginning in a commercial place, confined to labor, necessary, but not calculated to impress upon the mind the importance of those rules which govern all true business life), it is not strange that florists usually are men thoroughly trained in all the principles of plant growing, but very deficient in many things which all prosperous merchants practice.

No man in these days would dream of conducting a business of any extent without the aid of a set of books. If he did so, in a short time he would become hopelessly involved, and would quickly find his debts a network from which there would be but one escape. How many florists are there who attempt book-keeping upon the latest approved methods? The very question will probably bring a smile to the face of some of the readers of this paper.

It is the duty of every man—not only a duty, but an incentive to successful effort, to be able to state at any time his financial standing—how the debit and credit sides of his account stand; whether his stock is increasing or diminishing. I have never met with a florist who ever thought of any benefit to make a yearly inventory. To do so would be considered a laughing matter. This is partly owing to the fluctuating value of our goods, and also to the fact that our stock is increased mainly by our own exertions as propagators, and not by purchase. Time in a room alone marks the limit to the quantity of plants a florist may have. But a yearly inventory, if not essential, is certainly advisable. Such a list, if

thoroughly kept, will be found of great service, enabling the owner to keep himself well acquainted with the changes which will necessarily occur in the character of his stock, and helping him to decide as to what to grow for the next twelve months.

The amount of capital invested in the business should be noted, and interest charged upon it. The labor of the proprietor might also be considered, and for it a fair salary can be charged. Many florists suppose they are doing fairly well and making money, whereas, if they were to take into account the items above mentioned, they would find that they are receiving hardly an average return for their capital and personal services.

Unless an account of this kind is maintained, no business man can speak with any confidence as to the amount of the profit he is reaping from his investment. It must certainly be mortifying to any energetic man to find, upon his yearly examination, that his receipts from sales do not much more than pay expenses, when ten per cent. was expected to be realized. The knowledge of this fact should cause increased exertions, so as to produce better results. But how is this knowledge to be attained, if there is no way of obtaining the information? Careful and accurate book-keeping will save, as well as gain, many a dollar.

In connection with these loose business methods may be mentioned the practice of substituting plants other than those required by buyers. This practice has already been severely condemned by different writers, and therefore it would be superfluous to say more. We should remember that no commercial venture can long prosper by misrepresentation. To catalogue plants and induce buyers to forward their orders on the supposition that they can be filled, and then to supply plants altogether different, is surely a method of business very unsatisfactory. A fact coming under my own observation may be mentioned as an instance of the extent to which this practice has been carried. One hundred Bennetts were needed to complete the planting of a bed. Plenty of other roses were on hand; Bennetts only were scarce. An order for that quantity was sent to a firm doing an extensive business. The plants received were small, and consequently their foliage all looked similar. When these plants commenced to flower the following varieties were found amongst the supposed one hundred Bennetts: Glorie de Dijon, American Beauty, Mermel, Doughty, Bride and Pierre Guillot.

If we would be true business men, let everything be as represented; not only promptness and accuracy in the dispatch of orders, but care also in the packing, and we may be sure that our business will not only increase, but be satisfactory to others as well as to our-selves. A. E. W.

Notes and Comments.

The late show of the New York horticultural society did not result in any loss; it cleared a profit of \$150, or thereabouts. Not a magnificent amount for a week's exhibition, but certainly better than a deficit. Perhaps the combination of Linnaeus and Mrs. Jarley has lost its interest for the fickle public, so we hope for some strikingly new departure at the autumn exhibitions.

The nature of the fall show is not yet fully decided, but Mrs. Langtry has offered a valuable silver cup for the best design, and we hope to see a large competition, though the recent prize winner is not likely to be improved upon. Of course the fall show will display the latest things in chrysanthemums, whether it is devoted entirely to these flowers or not. But we want something entirely new, and a perfectly novel flower show is getting to be as difficult to originate as a perfectly novel church fair.

Some one suggested a June flower show, to be held in Madison Square garden, with a guarantee fund annex, too. It is currently reported that the mercury in an adjacent thermometer scuttled right down into the bulb when this last suggestion was made, such an Arctic chill fell upon the assembly. But the scheme was abandoned. Madison Square garden would be a white elephant in such a case; it would require a regular forest of decorative plants to make it presentable.

We hope one of these days to have a permanent winter garden in New York—as we ought to have, for we are away behind many other cities in this respect. We are told that a scheme is now afloat to establish a crystal palace in New York, after the style of that at Sydenham, and this will, of course, have a winter garden in connection with it. After we get this we may, in the course of a century or two, acquire a horticultural hall and a flower market, but the latter is almost too much to hope for.

Roses are painfully cheap now; the growers complain that they scarce can give them away. This is especially the case with hybrids. You can get rid of *Bon Silenes* and the like, but hybrids are overdone; the past few seasons they have been a positive drug at this time. Street vendors are selling them in the shopping districts for ten cents a dozen. These flower vendors keep increasing in number, and they are bitterly complained of by the regular florists. They lower prices and injure trade.

In May there was really more done in all sorts of irregular blossoms than in such as roses. Fruit blossoms—apple, pear and cherry—sold well, though cheaply, and were used a great deal. All sorts of woody blossoms take well with city people. I have never seen the mountain laurel (*Kalmia latifolia*) in a flower store, but its clusters of faintly blushing flowers are very handsome contrasted with its shiny leaves. It lasts well, and really would be very handsome in decoration. The wild rhododendron is another handsome thing that could be used very well. The past few seasons the street vendors have made a great feature of the marsh buttercups (*Caltha palustris*). They may be gathered by the bushel in the New Jersey swamps, and sell very well. About the worst thing in spring flowers ever sold by these vendors was a swamp "lily," said lily being a flower-stalk of false hellebore (*Veratrum viride*), tied up with skunk cabbage leaves, and a ball of moss at the bottom, cunningly

tied up, so as to suggest a bulb. The originator of these curiosities must have been the artist who builds the mermaid found in the dime museums.

Some one recently displayed in one of our florist's stores a new departure for the apple-tree. Double blossoms—double peach, plum, almond and cherry—are tolerably familiar; but I think this is a novelty. It would come in well for cut flower work, especially if it would force. The double blackberry flowers freely under glass, and is a most charming thing; it takes up little room, and is very easily grown.

I doubt whether Decoration day will be quite so remunerative to the florists this year. Straws show which way the wind blows, and the gentlemen having charge of the fund for public decorations complain that there is a very material falling off in the amount of subscriptions. Perhaps the fund business has been overdone, but this change in public taste means a decided loss to a good many.

But landscape work seems to increase every year. Not only in public parks and squares, but those soulless corporations, the railroads, are going in extensively for beautifying their domains. The Pennsylvania road was really the first to do much in this line; most of the stations between New York and Philadelphia are charmingly laid out, and the cut through the rocks between Jersey



FLORAL BAPTISMAL FEEL

City and Marion would gladden the heart of our Alpine friend, Mr. Robinson, of the *London Garden*. Most of the lines running out of New York now follow suit. Apart from the question of beauty, it increases the desire for flowers, and consequently brings a good many additional minnows into the florist's net.

EMILY LOUISE TAPLIN.

Floral Baptismal Font.

Our illustration is made from a photograph of a floral piece executed by the B. A. Elliott Co., of Pittsburgh. The base was of white carnations and Niphetos roses, the pedestal just below the bowl of sweet alyssum, and the bowl itself of white carnations, the rim edged with lily of the valley. The wreath draping over the side of the bowl was of Niphetos roses, and the birds were white sparrows. The design was chastely beautiful, and was much admired by all who saw it.

Plant Decoration.

Our illustration shows an effective grouping of flowering and foliage plants against a background of green, the wall being entirely covered with sprays of evergreens. The iron vase in the center holds a specimen palm, and is quite surrounded with candidum and Harrisii

lilies, the edge of the group being finished with fancy leaved caladiums and cissagrias. In arranging a decoration of this character, while symmetry should of course be observed to some extent, the arrangement must necessarily be free from stiffness to create the best effect. A study of the decoration illustrated cannot but benefit the novice in this work.

Notes from Central Park, New York.

BY W. W. FALCONER.

"Have you been to Central park this spring?" "Well, now, you must go and see the tulips and the spring flowers." That's what the folks who had been there kept saying to me, and on May 17 I went there. Central park proper contains over 800 acres, and is the park of New York.

"Dutch" bulbs.—Too late for these. But in cool and shady places many tulips linger still. White Pottebacker as a white; chrysolora, yellow prince and canary bird, as yellow; and Belle Alliance, red, are the favorite kinds, with Duc Van Thol as an early scarlet for out edges.

Spring flowers.—Large patches of red, pink and white moss pink (*Phlox subulata*) occur upon the rocks and rocky slopes; *Phlox amena*, purplish pink, and *P. Stellaria*, lilac blue, are associated with them, and have a striking effect as seen from the drives and walks. Evergreen candytuft is a sheet of white; *Erysimum rupestre*, a mat of yellow; *aubrietias*, blue and purple and white; dwarf thrift (*Armeria*), pale and deep pink; red columbines; white and yellow barne-worts (*Epimedium*), and white trilliums are used extensively in rocky places and contiguous beds, and catch the eye of every passer by. To succeed these there are German irises, peonias, columbines of sorts, perennial coreopsis, Siebold's sedum, speedwells (*Veronica*) in variety, bell-flower (*Campanula*), and many others. Mantles of stonecrop (*Sedum acre*) are also spread upon the rocks; a few weeks later they will be sheets of gold. But one of the most charming flowers now in bloom is the spring beauty (*Claytonia Virginica*), which occurs in great profusion among the grass beneath some of the small growing trees near the base of moist slopes. Lily of the valley spreads upon the sunny slopes and fills the air with fragrance; wild hyacinths (*Scilla campanulata*), white, pink and blue, occur among the thinly-planted shrubbery, and associated with them are snowy mats of *Stellaria Holostea*. And there are day lilies, plantain lilies and true lilies in abundance, and Solomon's seal around the base of the rocks. In addition to the above, pansies and daisies are greatly used, and forget-me-nots in limited quantity.

Bedding plants.—Year after year greater quantities of these are being grown, but they are neither grown nor used in anything approaching the quantity employed in any of the parks of Chicago or many other cities. Among geraniums, Black Hawk, a golden bronze, is much liked; *Alternanthera versicolor*, *A. paronychioides* major, *A. aurea* and *A. amena* are the favorites; coleus *Verschaffeltii* is not superseded by any crimson-leaved, nor golden bedder by a yellow, but J. Goode, an untied new variety, is being propagated with the utmost vigor, as much is expected of it. *Centaurea candidissima*, *C. Clevenitii* and *C. gymnocarpa*; *Santolina chama cyparissis* and *Gnaphalium lanatum* are chief among the silvery-



PLANT DECORATION.

leaved plants. The acalypha are prominent among tender shrubby plants; erythrinas are isolated and grouped in little beds. Annuals comprise golden feather, globe amaranths, *Torenia Fourmieri*, *thunbergia*, *vinca*, *tropeolum* and *sauvitalia*.

Aquatics.—In some of the water pools *nelumbiums* are coming up, also seedlings of the tender lilies that were planted in them last summer. But the old plants of the tender lilies (*Nymphaea*, *Linnæa*, *charis*, *Villarsia*, *Pistia* and the like) are still in pots and tanks in the greenhouses and sunny frames, as the water out of doors is yet too cold for them. And the carpenter is busy repairing large plank boxes for the lilies. These boxes are, I should say, some four or five feet square by twelve to eighteen inches deep. These are partly filled with soil, and the lilies planted in them and sunk in the ponds. By this means one can use the proper soil and plant nicely, and the boxes can

be lowered or raised in the water to suit the plants, and in the fall at lifting time the boxes can be brought out of the ponds and the lilies removed from them to their winter pots with very little trouble and no fear of injuring the roots. Water lilies are becoming quite a feature in the summer decoration of all prominent eastern parks and public gardens. *Nymphaea rubra* and *N. Zosterifera* are in good bloom. *Pontederia crassipes* is also in flower. The flowers are large, bluish and quite pretty. I had not before seen it in bloom.

Trees and shrubs in flower.—Large, broad headed trees of *Paulownia imperialis* are beginning to display their violet-blue flowers; but they are leafless still. *Halesia tetrapetala*, isolated and in groves, are a splendid sight, leafless but covered with snowdrop bells. The flowering dog-wood (*Cornus florida*) is at its best, and shows to most advantage in front of larger trees and on warm, sunny slopes.

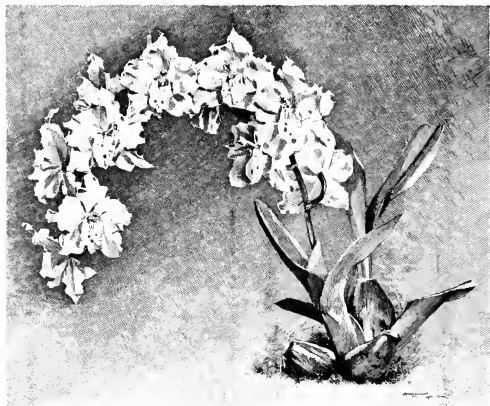
Staphylea trifolia has clusters of waxy white flowers, and is an excellent showy shrub and the best of its race. The earlier magnolias have done blooming, but *M. umbellata* is spreading leaves and flowers; *M. Soulangiana* has a few blooms left, and *M. Lemoinei* a goodly crop. *Limonium trifoliatum* is in full bloom. The plant is some seven feet high, very spiny, and well laden with large, white, fragrant flowers. We call it the hardy orange tree, but how hardy it may be I would not like to say. This specimen occupies an exceptionally warm, well-sheltered spot. Bush honeysuckles abound; among them *L. fragrantissima* is the favorite. The whitest of all white flowers is furnished by *Exochorda grandiflora*, now in copious profusion. Isolated specimens of *Viburnum Lantana* are handsome in themselves, and showy with white flowers; plants crowded among other plants don't look nearly so well. *V. prunifolium* isolated in the park surpasses in comely form and abundance of white flowers anything seen in our woods or waysides. Forsythias and Missouri currants being past, caraguanas and kerria furnish the yellow among the shrubs. Chinese wistaria in unusual profusion drapes the rocks, covers the arbors, festoons the trees, and in several cases has climbed up into and taken full possession of some maple trees.

A persistent weed.—In Mr. Robinson's "Flower Garden" we find "*Polygonum cuspidatum*, also known as *P. Sieboldii*, is a plant of sterling merit, and is undoubtedly one of the finest herbaceous plants in cultivation." In Central park it has become an almost exterminable pest. *Petasites vulgaris* is also found to be a very persistent weed, but without extenuating merit.



Odontoglossum Crispum.

This species is the best known, and to florists the most useful of an extensive and deservedly popular family. The flowers which are so freely produced are in endless variety. Often among a batch of imported plants scarcely two will produce flowers exactly alike. Two extreme forms are original—a rare variety, with snow-white flowers, its chaste beauty being enhanced by a dash of lemon on the crest—and *Wilckeanum*, with flowers fully four inches across, and heavily blotched with chestnut on a yellow ground, which fades with age to a white. Between these types there is a legion of intermediate forms, many of them so different as to be treated as distinct species, notably *Andersonianum*, *Ruckeanum* and *mulus*. The great diversity of types undoubtedly arise from the intercrossing of *O. crispum* with other species, especially with *gloriosum*. The hybrids from this source produce smaller and more or less spotted flowers, and strong plants always give branching spikes, which the true *crispum* does not, or rarely. A collection of all the varieties would form a very interesting study. I have a collection of dried flowers so arranged as to show the



ODONTOGLOSSUM CRISPUM

ascending stages from the small and fragrant form of *gloriosum* called *odoratum*, to the large, round flowers of a good type of *crispum*.

The species was first found by Hartweg, in 1842, and named by Lindley, but through ignorance of cultivation all the plants were lost. More than twenty years elapsed before plants were again sent to Europe, and this time it was re-named *O. Alexandrac*, by Bateman. This name was generally retained, especially among the English, but recently the rightful name of *crispum* is more generally adopted. Prof. Reichenbach also gave it the name of *Bluntii*, in honor of the collector. Its home is on the Eastern Cordilleras, in the neighborhood of Bogota, about 9,000 feet above the sea. It is here found in great quantities, growing on trunks and branches of trees on the margin of forests, seldom in the full sunshine or in dense shade. The temperature of this locality varies from 55° to 70°; rain falls nearly every day in the year, and heavy fogs prevail at night, which in the woods condense and run down the trees in miniature streams.

The cultivation of this lovely species was but little understood until the last few years. Formerly it was the universal practice to kill them in hot stoves; then again they were relegated to cool green-houses, with temperatures of 40° to 50°. Though they will do fairly well in this temperature, a higher one is more suitable, and will better develop the spikes of bloom. Most growers now keep in the neighborhood of 60°. In this country a lean to house with a north aspect is very desirable, and where numbers are grown I think it necessary. They require to be always shaded from the sun. The house may be kept cooler in the summer by elevating the shading about eighteen inches above the glass, with space on top from the wall of one foot. Air should be given in abundance, when consistent with temperature. The plants should never be dry, but always give an abundance of water overhead. In pot-

ting, use no larger pots than necessary; fill three-quarters with broken crocks, and use a mixture of peat and moss; elevate the plant above the level of the pot. With dry imported plants, fasten them with sticks in pots filled with crocks, and keep them moderately warm and moist until the growths and roots are started, when a little potting material may be filled in around them.

F. G.

Lælia anceps Alba.

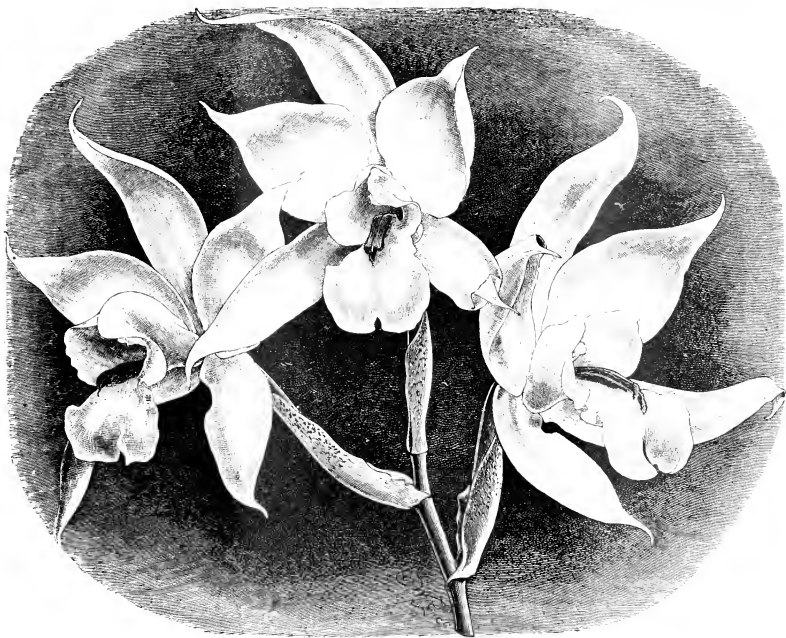
Carrying out our intention to present our readers with latest additions to the fine varieties of *Lælia anceps*, we figure a flower-spike of *L. a. alba*, from a flower exhibited from Baron Schroder's collection by Mr. H. Ballantine on Jan. 11 of this year, at the Royal Horticultural Society's meeting. This is a pure white variety, remarkably chaste and beautiful, the sepals and petals broad as in *L. a. Dawson*, with lip embellished with a pale yellow disc. The usual season of flowering is December and January.—*Gardener's Chronicle.*

The *Cypripedium*.

BY W. A. MANDA.

Not only is this genus rich in natural species and varieties, but we have also numerous kinds produced by crossing the different species, so that at present the hybrids outnumber the species. In a few more years we will have hybrids by the hundred, so that it will take an expert to distinguish them. It is therefore high time that this genus should be written up, and a record kept of all the new comers, so as to prevent confusion in the future.

So far we have not any hybrids of the deciduous kinds, either among themselves or intercrossed with the evergreen varieties. Among the latter we find a great number of hybrids. The first *cypripedium* hybrid (*C. Harrisonianum*) was raised by Mr. Dominie, on suggestion of Mr. Harris, for whom it was afterwards named. This was some twenty years



LELIA ANCEPS ALBA. FLOWERS WHITE

ago, and still *C. Harrisianum* is considered one of the best and most free-flowering of cypripeds. It is intermediate in foliage and flower between its parents, the *C. barbatum* and *villosum*. The *C. Ashburtoniae* is a cross between *barbatum* and *insigne*; *C. vernixium* between *Argus* and *villosum*, and *C. Seligerum* between *barbatum* and *laevigatum*. The grand *C. Morganii* was produced from *superbiens* and *Stonei*; *C. Leeaeum* from *Spicerianum* and *insigne*, while *C. Leeaeum superbum* had *insigne* Maulei for one of its parents. *C. pycnopterum* was raised from *venustum* and *Lowii*; *C. microchilum* from *niveum* and *Druryi*; *C. calanthum* from *barbatum* biflorum and *Lowii*. The *C. Barteti* and *C. Laforcei* came from one seed pod of *C. insigne* Chantii fertilized by *barbatum*, and therefore I cannot see the necessity of two distinct names. *C. turpe* is a cross between *barbatum* and *Argus*; *C. Winnianum* between *villosum* and *Druryi*; while *C. Dauthieri*, a cross between *barbatum* and *villosum*, is scarcely distinct from *C. Harrisianum*, having the same parents, and thus should be considered only as a variety of the same. This is also the case with *C. hybridum*, which has the same parents as *C. euraydrum*, viz., *barbatum* and *Stonei*, and therefore should not have a distinct

and misleading name. *C. Crossianum* and *C. Amundum* have also the same parents, viz., *insigne* and *venustum*, and go under two names. *C. calophyllum* is a cross between *barbatum* and *venustum*; *C. gemmiferum* between *Hookeri* and *Dayanum*; *C. marmorophyllum* between *Hookeri* and *barbatum*; *C. Sallieri* between *villosum* and *insigne*; and a superior one, the *C. utiens*, comes from *villosum* and *insigne* Maulei.

C. supercilare and *C. Swainianum* cannot be considered as hybrids, but only varieties, because the parents of the former are the *barbatum* and *superbiens*, and the latter *Dayanum* and *barbatum*—in both cases the parents being either closely allied species or only geographical varieties. The *C. porphyrophilum* was raised from *Lowii* and *Hookeri*; *C. lo* from *Argus* and *Lawrenceanum*; *C. radiosum* from *Lawrenceanum* and *Spicerianum*; *C. politum* from *barbatum* *superbum* and *venustum*, being only an improved variety of *calophyllum*.

Some plants, although raised many years ago, are still rare, so that we hear very little or nothing about them. Such are the *C. Fraseri*, a cross between *barbatum* and *hirsutissimum*; *C. luciden*, between *villosum* and *Lowii*; *C. macropterum*, between *Lowii* and *superbiens*, and *C. porphyrochlamys*, between *barbatum*

biflorum and *hirsutissimum*. This latter is only a variety of *Fraseri*, or vice versa. The beautiful *C. tessellatum* was raised from *barbatum* and *concolor*; *C. vexillarium* from *barbatum* and *Fairieanum*; *C. Arthurianum* from *insigne* and *Fairieanum*, and *C. Marshallianum* from *venustum* *paridum* and *concolor*.

Others again have no known parents, but I think as all the cypripeds are intermediate in flower and foliage, it would not be very difficult to surmise their origin, for, as a well-known botanist has said, "anybody who knows the parents will recognize the children." Of those whose birth was not registered or the record lost, we have *C. Imperiale*, *discolor*, *melanophthalmum*, *meirax*, *orphnum*, *Cooksoni*, *obscurum*, *Saundersianum*, *chloroneurum*, *Mooreanum* and the discarded *Tautianum*.

Some again are of recent origin, and thus little known or tested, such as *C. Amesianum*, a cross between *villosum* and *venustum*; *C. eurvale*, between *Lawrenceanum* and *superbiens*; *C. regale*, between *purpuratum* and *insigne* Maulei; *C. aurorum*, between *Lawrenceanum* and *venustum*; *C. Gernyanianum*, between *villosum* and *hirsutissimum*, and *C. javanico-superbiens*, whose name suggests the parents.

As for secondary hybrids, we have the

C. ananthum from *Harrisianum* and in-signe Maulei; *C. Thibautianum*, of the same parentage (and why again a new name?) ; *C. concinnum*, from *purpuratum* and *Harrisianum*, and *C. Williamianum*, from *villosum* and *Harrisianum*. It must be observed that the popular *C. Harrisianum* plays a part in all these crosses. What is *C. venustum*? Mr. Goldring, of Albany, says that it is nothing but *C. vernicum*. As for *C. vernicum* and *C. Mearesianum*, I do not know whether they are hybrids or species.

From the *selenipedium* section we have also many fine and beautiful kinds of garden origin. The very oldest and most largely cultivated, *C. Sedeni*, was raised from *Schlimi* and *longifolium*; in the case of *C. Sedeni candidulum* the white variety of *C. Schlimi* was used. Very near to *C. Sedeni* comes the *C. porphyreum*, a cross between *Roezlii* and *Schlimi*. The most useful of this class, the *C. Dominianum*, has for parents the *caricinum* and *caudatum*; *C. steophyllum* came from *Schlimi* and *caricinum*, and *C. conchiferum* from *caricinum* and *Roezlii*. The very fine *C. grandum* was raised from *Roezlii* and *caudatum*, and *C. leucorhodum* from *Schlimi album* and *Roezlii*.

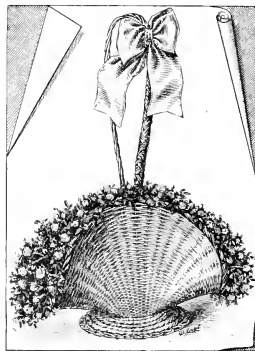
We have secondary crosses in this section as well as in the former, only here the *C. Sedeni* has played the principal role. Thus *C. Ainsworthii* is between *Sedeni* and *Roezlii*; *C. Schroederæ* between *caudatum* and *Sedeni*; *C. calurum* between *longifolium* and *Sedeni*; *C. cardinale* between *Sedeni* and *Schlimi album*, and *C. alba purpureum* between *Schlimi* and *Dominianum*. This alone shows that the three classes are distinct, there being no intercrossing one with another; yet if it could possibly be done, how many new and fine additions we could have. *Cypripediums* have also demonstrated that the theory of mule plants being sterile is false, as we see by the distinct secondary crosses of this genus.

There are also several varieties of some of the hybrids. Thus we have *Ash-burtonicæ expansum*, *C. Harrisianum nigrum* and *superbum*, *C. ananthum superbum*, *C. seligerum majus*, *C. tessellatum porphyreum*, *C. vexillarium superbum*, *C. Sedeni superbum* and others, that vary as much as the species do in their native haunts. Most of the hybrids were raised in England, and lately a few have appeared in France. So far none have originated in America, but at Mr. Conning's, in Albany, there are lots of young seedlings, none of which have flowered as yet.

The raising of hybrid *cypripediums*, like any other orchids, is very slow and delicate work, requiring from four to twelve years from the time of sowing the seed to the flowering period. To cross and produce seed is a very easy matter. The former is performed by taking the two fertile stamens and placing them on the stigma, which is under the shield or sterile stamen. The plants chosen for that purpose should be strong and healthy, and the stronger grower of the two should be selected as the seed parent. The plant which is operated upon should be kept in a light and partly sunny place, to facilitate the ripening of good seed, which is accomplished in from eight to fifteen months after the operation, according to the species and condition of the plant. When ripe, the pod, which contains thousands of minute seed, bursts open, and that is the time when it should be cut and the seed sown.

To make the seed germinate and nurse the young plants till they reach the flowering size, is the most difficult part of this work, of which we have little information at present; it seems to be a secret that is confined to a few. A column or so from such veterans as Messrs. Dorny and Seden would help us beginners very much, but not having such information, we must try for ourselves, and run the chances.

Where there is not a convenient place for the reception of seed, which may be sown on fresh moss, cork, bark or turfy peat, the next best way is to sow them right on the pot of the mother plant, which leads to as good a result as any other way. After the seeds have germinated, care must be taken that they do not suffer for want of moisture, nor from excess of it. They should also be kept close to the glass, and shaded only from the hot sun, so as to make them as sturdy as possible. Only distinct species should be selected, so as to produce real hybrids, and then only such as have desirable qualities, thereby insuring hybrids superior to either of the parents.



MADE IN FRANCE, 1877.

As a rule the hybrids are stronger growers and their flowers are more showy and more freely produced than those of the types. This fact should be encouragement enough to keep up the good work, and to raise more and more of these beautiful plants, for we cannot have too many of them.

Cambridge Botanic Gardens, May 23, '87.

(To be continued.)

Summer Floral Styles.

BY OUR NEW YORK CORRESPONDENT.

All arrangements with flowers show much less foliage; green dinners and decorations where only foliage is used are of light and lacy effect, embracing only ferns, asparagus and a delicate tracery of vines. Some charming room embellishments have been made this week. For the last of a series of May parties the drawing-room walls showed each a different effect. On one side was a simple branch of dogwood; opposite, a long and luxuriant vine of flowering wistaria was most gracefully adjusted. In an adjoining room an ivy vine crept over the pictures one side; on the opposite,

over a mirror, was a superb cluster of white lilacs. The flowers at each end of the apartments were finely tinted hy-dangeas.

The most fashionable design for wedding is the bow-knot, which is arranged as follows, and takes the place of a bell: A coil of *Marguerites* is made, six yards long; this is tied into a bow-knot, the bow having long loops, and long ends being left to droop also. This device is placed in relief from foliage effects, which should be high and pendant. The first bow-knot was made by Klunder for Dr. John Hall's daughter's wedding, when the entire room arrangement was made with daisies. A daisy field was represented on the mantle piece, only about half of it being covered with flowers; as is the style, the remainder being some simple fern effects, with a classic vase at the end, in which is a blaze of roses or gladioli. One or two elegant decorations have occurred where money was no object. A combination of drapery and flowers made rich and unique the interior where the entertainments were held. Sashes of yellow plush, satin and silk, were embroidered at the ends, with a spray extending upwards of natural flowers, pink blossoms being almost entirely used. The scarfs trimmed easels, mirror and picture frames, and an elaborate one was on the table in the extension room, where the collation was spread. Each bouquet among the favors was tied with a sash on which a flower was caught.

Bridal bouquets are made of staphanotis and orange blossoms, gardenias or *Narcissus poeticus*. The "coaching bouquet" has having a run. This is always of pink flowers, barness roses and red roses being the favorite combination. The bouquet is made very large, and flat one side, so it can lie on the lap. Corsage bunches for coaching are a small cluster, which is fastened where the jacket meets over the breast. Large bunches at the waist are in the way while riding. Men no longer wear large boutonnieres when coaching, but a few violets or a single spike of *mignonette* or one gardenia. Some very quaint corn flower bouquets are made up for those going on excursions. These are the tight-laid pyramidal affairs once known as Boston bunches. They are composed entirely of blue blossoms, tied with a narrow blue ribbon, and are decidedly French in effect. Cowslips are worn on the street, and the clusters are large and placed on the left side of the corsage.

Fish baskets are filled with water lilies and are tied round carelessly with water-green ribbon in the kind known as *water-green ribbon*, and have a knot of ribbon and several lily buds on the handle. They are arranged among aquatic foliage, tall cyprus towering up towards the high, square handle. These baskets filled with wistaria and dogwood are favorite, as they are when containing purple lilacs and purple wistaria mingling on one side, and white lilacs and white wistaria on the other.

The Browers have introduced a "bed of blossoms basket" mounted on a pedestal, which they first made up for Queen Kapiolani. The design is a superb mass of roses, so supported as to show them and their foliage and stems to the best advantage. This piece has become popular as a steamer souvenir, but is naturally expensive, and cannot be handsomely filled for a small sum. The cowboy's hat is a charming new basket inaugurated by Hanft Bros. The hat is a wide-brimmed, rakish one, placed on a straw

easel if to be used on the table, or tied together with stout grasses if carried on the arm. It is always filled with field flowers or wild bloom of some kind.

The most chaste novelty of the season is the Marie Autoinette basket, which is woven of pliant willow, and has long, soft, loop handles. The basket is usually lined with cream-colored silk, and it is filled with moss rose buds. This is carried on the arm by girl graduates and bridesmaids instead of a bouquet. But one handle is trimmed, and that only half way up. Ribbon to match the lining in color is braided up half way of the handle, which is outside when carried, and it is finished with a bow and ends. Floral favors for graduates at the early summer commencements are of the most expensive description. A music stand of flowers and foliage is made for a young lady, which is a highly finished piece. The racks are floral harps, with strings of bullion. Fans are decorated in many styles. The large Japanese straw fan with a light spray of blossoms across its center is favorite.

Elaborate decorations are made in school-rooms and on stages for commencement exercises. Pianos are trimmed around the legs and music rack, and their tops are made veritable beds of blossoms. The pansy screens gotten up in such rich style by our florists are highly effective if placed on a piano.

Dinner table decorations are exceedingly chaste, the most fashionable being those where mats of light fronds of adiantums, such as *A. gracillimum* or *A. cuneatum*, are laid out under glass bowls of flowers. The foliage mat should be formed of clusters of three fronds, the center one protruding farthest. A circle of these clusters give a pointed edge to the mat that is very graceful. Three mats for a dinner of twelve, or one in the center for a dinner of six, is the rule. Glass bowls from three to four inches high are placed on the mat. They are first filled with foliage and water so the green lines them and will show through. Then they are festooned with small flowers. Buttercups, daisies or orchids are plugged in the foliage filling. Favors are passed around on trays, for at this season they will at the plates. Very little foliage is put in these favors—none if they are buttercups—small clusters of the flowers being tied tight together.

For young ladies' luncheon parties, low rush basket vases are used, filled with magnigonne and moss rose buds. Small Marie Autoinette baskets lined with yellow and containing magnigonne and one little cluster of moss buds at one side, are the favors. They are not placed at the plates, but presented when the repast is over.

Some inspiring prices have been given for Decoration day in the way of crosses, anchors and wreaths of large size of ivy. The inclination is to purchase plants for grave ornamentation rather than cut-flowers on Decoration day. Orders are numerous for decorating lots and graves, and large lots of tropical plants will be placed in lots that will be removed afterwards. Arches of this foliage will be made over graves on which some device in flowers will cover its entire length. That is the fashion this season, not to place designs of many shapes on the graves, but simply one—usually a cross of choice flowers or a large wreath. Other designs are placed around the lot. Fences are garlanded and hedges trimmed with chains of bloom.

Excellent effects may be made with gladioli on graves, because they form fine



ANTHURIUM ANDREANUM.

edgings and make well defined devices. Those of delicate color are in considerable demand for funeral work where rooms are trimmed. A pall of Faust pansies was made last week by McConnell which was as near black velvet as could be. It was the only piece of floral work exposed at the funeral excepting a large loose cluster of lilies that was laid on the casket by the wife.

Anthurium Andreanum.

Among the 160 species of this interesting genus the subject of the accompanying engraving is by far the most showy. The singular structure, brilliant color and large size of the spathe contrasting with the yellow and white spadix, makes it the object of much admiration, and the longevity of the inflorescence greatly enhances its commercial value. Were the plants not of a somewhat coarse and straggling habit, it would become more popular than the better known *Sherzerianum*.

Although this species has been introduced about ten years, its cultural requirements do not seem to be generally understood. Any way, it can be seen doing well in but very few places, and I often hear complaints of its miffy growing. When properly treated, this species is a perfect weed in growth, and if the grower is restricted for room, the knife would have to be used to keep it within bounds. Its home is on the Andes of Colombia, about 3,000 feet above the sea, in a very warm and rainy district. It is here found in great abundance, in shady spots, growing on the ground, stumps, or

trees equally well, a perfect thicket of undergrowth. If the grower will imitate these conditions as nearly as possible, he will find no difficulty whatever in growing this fine species. Two parts of sphagnum moss to one part of peat will be found a good potting material. But the chief requirement is abundance of water and heat. When the pots are filled with roots, liquid manure will be found beneficial. When properly fertilized, seed is produced in abundance. As soon as ripe, these should be sown in chopped sphagnum, being covered about half an inch. In about two months the seedlings will be ready to be pricked off, or potted separately in thumb pots.

We have at present about 200 plants coming in bloom, which are about eighteen months from seed. To make good specimens quickly it is better to put four to six seedlings about two inches apart in a pan, and let them grow together. In this way we have specimens more than four feet through, and as much in height, only five years from seed. The only insect pest of this species that I am aware of is red spider, and this can be avoided by constantly syringing overhead and under the leaves. F. G.

Succession Crops in the Greenhouse.

Whether the florist's business is carried on in a small way or on the most extensive scale, to make it profitable it is essential to have greenhouse benches filled as often as practicable with succession crops; simply taking one crop off the benches will result in very meager profits indeed at the present rate of

prices. In my own practice we have for many years taken never less than two crops off of every foot of bench space, and in many of our houses three, and in some particular families of plants, such as coleus, verbenas and heliotropes, as many as six crops are taken off of every foot of space.

To get more than two crops, one must have an order business which runs over five or six months of the season, but even a florist who has only a local retail plant trade or the open market to sell in, should always be able to use every foot of his greenhouse space twice. In most towns the sales of plants, whether in market or locally, begin in April and extend to June, a period of eight or ten weeks. As soon as the greenhouse space gets emptied towards the end of April or the first week in May, succession crops from seedlings or cuttings should be on hand to be potted and shifted on, so that the greenhouse bench may be as full by the middle or end of May as they were in the middle of April, so that the season may be lengthened with salable stock to the middle of June. Of course to do this extra labor must be had at the proper time. This is not always to be obtained at the proper time, but it is always profitable to pay employes for over-time at that busy season of the year. Every season from April to June we have from fifteen to twenty of our best men working by lamp-light until ten or eleven o'clock, which is equal to adding seven or eight effective hands to our force, which could not be procured at the busy season of the year. Our men always go at such work willingly, as every hour they work after six o'clock is paid for as over-time, which any firm well established in business on a paying basis can well afford, and should do, but beginners, with only two or three men, struggling to make ends meet, may reasonably expect to have their hands help them in emergency without extra pay for over-time, particularly if they are men who are kept throughout the entire year.

Where the florist beginning has only his own hands to rely on, if he wants to make the business a success, he had better make up his mind to "burn the midnight oil" for at least three or four months in the spring. For the first fifteen years I was in business, I think it safe to say that either in the office, greenhouse or grounds, I averaged sixteen hours per day the entire year. Such work will never hurt a healthy man, because it is certain to bring success if judiciously employed, and success, other things being equal, we all know conduces to happiness and health in a far greater degree than its opposite.

PETER HENDERSON.
Jersey City, May 10, 1887.

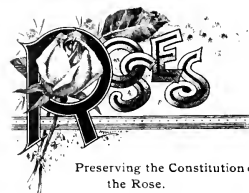
Hen Manure.

Replying to the query of "H," I use it in a dry state with satisfactory results. It is less disagreeable than when liquid, and does not require so frequent application. I generally use it when repotting, leaving a space for it around the ball of earth at the top of the pot and covering lightly with soil or sphagnum. I prefer this rather than removing soil in pots as it is easier to prevent direct contact with the roots, which would not be safe. The quantity to apply depends largely on the plant. A little will greatly improve sweet alyssum, but it will not bear a large amount, while fuchsias will be benefited by a liberal application, and I have never tried any other fertilizer on them that

will produce such results in vigor of growth and freedom of bloom.

Felargoniums, to which I applied hen manure in this way about the first of December and gave water very sparingly until warm weather in February, are now pushing vigorously with very dark foliage, showing a marked improvement over those not so treated.

W. F. B.



Preserving the Constitution of the Rose.

BY M. A. HUNT.

How shall we preserve the constitutional vigor of our forcing roses? is a question that has been often asked, and the answers given have varied with the experience and observation of the different writers who have contributed to these columns.

There is no doubt but that a rest, if it can be given, is beneficial, but how is it to be obtained in the form of hard-wood cuttings, as has been advocated, and still retain methods that seem to be potent factors in the accomplishment of the desired result?

North and south side propagating houses have their advocates. We use and like both—a sunny exposure for the winter months, and a north side room with one single row of glass on the south slope for the remaining months of the year. In this latter we have the advantage over a perpendicular wall of being able to give more light on dark or cloudy days, and to admit sunlight to such parts of the bed as we desire, at the same time having a small surface from which heat is radiated, or to screen by lattice or curtains, if it is desired to exclude the sun altogether.

While these are all helps, no success can come save from clean, healthy wood, made so by intelligent care and watchfulness from the time the cutting is rooted until it in turn reproduces itself the following season. Intelligent care and good judgment are, in fact, indispensable, and the best success does not come where they are lacking. Soil, water, air, light and heat are the principal factors in the hands of those skilled in the business, that give us health, vigor and productivity.

We do not wish to be understood as saying that neither but skilled labor can grow roses, but we do say the results achieved will be directly in proportion to the skill, care and judgment of the operator, and the whys and wherefores, the ways and means of success are things pen and paper cannot communicate to others save in a general way.

It will also be found that those who succeed best are they who have a natural love and aptitude for this particular branch of the business. Memory recalls to the writer—and it will doubtless to others—instances where persons have entered upon the business simply as a means of subsistence, and although intelligent and capable men as the world goes and under the best of instructors,

still as soon as left to themselves work mechanically, and have actually been known to air and water just so much at just such an hour every day, rain or shine, hot or cold. This produced results, but not in a line to please the one who paid the bills.

Another important factor in keeping stock healthy and productive is in the selection of wood from which the flowering plants are to be grown. "Like begets like." Whatever may be our individual opinions relative to the "survival of the fittest" in the human species, there are none who have carefully observed it in plant life but will give it indorsement. The agriculturist who would take his seed from a promiscuous lot, rather than be to the trouble of selecting the best, would be deemed unfit for his business. We saw this principle proved in boyhood, when by careful selection of seed a certain kind of corn was greatly increased in producing capacity. This was accomplished by gathering from the standing crop perfect ten ears just as it was ripening, and the practice being followed from year to year gave astonishing results.

Given a healthy stock to start with, it can be kept so by a careful selection of the wood from which it is perpetuated. We believe the best time to select and propagate for this purpose is from February 1 to May 1; that the wood possesses more vigor then than earlier in the season, and that no wood should ever be used for this purpose save such as has borne a fine, perfect bud. As an illustration of this, take the *Mermut*. There is no rose grown so inclined to run to blind wood as this, and so firm is our belief in the principle laid down, we would sooner pay double price for plants of this variety grown from a cane that has produced a perfect bud, than use for planting those grown from blind or non bud-producing wood. It has been our practice to select all wood designed for forcing purposes in this way during the months mentioned, and we find that instead of deteriorating, our plants were never so strong and healthy as at present, though this is the seventh year that some varieties have been worked without any rest or change save the short time given while in 4-inch pots, often attaining a size suitable for border planting.

To sum up the whole matter in a word, there is a mutual dependence each upon the other. If the operator gives the plant his best care, it in turn will give him proportionate vigor, strength and productivity.

American Beauty.

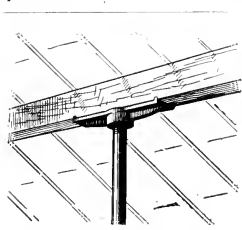
In the May issue of the *Journal des Roses* Mr. F. Harms, of Hamburg, makes the startling assertion that the *Beauty* is not a new rose, but is an old French rose—"Madame Ferdinand Jamain" (*Lede-chaux*, 1875)—brought out by "tricky speculators" under a new name.

Ellwanger describes "Mad. Ferdinand Jamain" as follows: "*Lede-chaux*, 1875. Deep rose, cupped, form, highly scented, moderate growth."

The lack of reliable evidence as to the exact origin of *American Beauty*—claimed to be a chance seedling from the garden of the Hon. Geo. Raneroff, of Washington—renders possible all sorts of claims, and while it may be that instead of being a seedling it was an old variety from which the label had been lost, still it is highly improbable that it is identical with *Madame F. Jamain*, as many dissimilarities exist between the two roses,

though there is a resemblance in certain characteristics. Mr. Henry Meehan, of Aurora, Ill., who has grown the two roses together under similar conditions, states in regard to this question: "Madame F. Jamain and American Beauty are somewhat similar in color, but not in growth or form of flower. The color of the Beauty is deeper in winter and spring than Madame Jamain, and the foliage of the Beauty is stronger and heavier, and the young growth stands more erect, in addition to being a much stronger grower in every way."

The difference in the growth of these two roses, as evidenced by Ellwanger's description and the experience of American growers, should exonerate our American rosarians from any charge of "tricky speculation."



CAP FOR PIPE SUPPORT.

Daily Record of Work Done at the Lincoln Park Greenhouses, Chicago, 1886.

June 1.—Temperature: Morning, 68°; noon, 75°; night, 75°. Wind SW. Continued planting out arbutus and beds of foliage plants, including coleus. Planted out petunias, phlox and heliotrope. Transplanted clematis into 4-inch pots. Filled window boxes.

2.—Tem. 71, 65, 60. N. Continued planting out. Potted fern seedlings.

3.—Tem. 53, 58, 63. NW. to SE. Continued planting out. Potted oxalis.

4.—Tem. 60, 78, 73. SW. to SE. to W. Finished planting out central foliage bed and arbutus at south end. Planted geranium beds in front of greenhouses, and commenced planting foliage beds in same location. Potted vinca seedlings.

5.—Tem. 62, 77, 62. W. to NE. Same as yesterday.

6.—Tem. 58, 72, 63. E. to W. Sunday.

7.—Tem. 60, 60, 55. NE. Continued planting out beds containing coleus and alyssums. Prepared elevated carpet bed for planting.

8.—Tem. 60, 65, 62. E. to NE. Continued planting out.

9.—Tem. 65, 80, 78. SE. to SW. Continued planting out. Repotted winter flowering begonias from 2-inch to 3-inch pots.

10.—Tem. 60, 62, 58. NE. Same as yesterday.

11.—Tem. 60, 66, 60. Same as yesterday.

12.—Tem. 70, 90, 80. S. Finished planting elevated bed. Cleaned frame yard.

13.—Tem. 70, 82, 85. SW. Sunday.

14.—Tem. 80, 80, 80. W. to SE. Laid beds with bronze and white-leaved geraniums, coleus and thymus. Planted out erythras. Repotted winter flowering begonias.

Cap for Pipe Supports in Greenhouses.

The great superiority in every way of iron pipes over wooden posts in greenhouse construction is now so universally recognized that any arguments on the question would be superfluous. These pipes always stand on a foundation of stone or concrete, but are attached to the purlin in various ways. A cap for this purpose noticed in the houses of Mr. J. T. Anthony, a florist of Chicago, seemed to meet all the requirements so well that we give a sketch herewith, which shows the application better than any description can. The pipe support screws into the cap.

Horticultural Nomenclature.

BY L. H. BAILEY, JR.

The reformation in the nomenclature of pomological varieties which has been inaugurated by the American Pomological society, needs to be carried to all cultural varieties. Precisely the same reform can apply to the nomenclature of the vegetable garden, but it must be modified somewhat in the case of ornamental plants.

The names of ornamental varieties are often almost pre-Linnean in length. The practice of multiplying Latin adjectives, without the intervention of punctuation or modifying words or abbreviations, has well-nigh destroyed the beauty and simplicity of binomial nomenclature for horticultural purposes. The blame lies largely with the seedsman, nurseryman and gardener. There is no indication of reform from these sources; it remains for horticultural societies to demand and inaugurate it.

The confusion of which we complain owes its origin to an aping of botanical methods, followed by loose usage in inaccurate hands. There is no reason why Latin adjectives should be applied to cultural varieties, while there are several reasons to the contrary. We need to distinguish between natural and artificial varieties; the former should be designated by Latin adjectives, the latter by English. *Juniperus Sabina* var. *procumbens* is a natural variety, *J. Sabina* "var. *variegata*" is a cultural form or variety, yet the names do not designate this fact. If I am met here by the assertion, true enough, that nomenclature never aims to discriminate characters, I reply that the Linnean system has for its province the designation of plants as they occur in nature, not the elicitation of kinships, and that our common horticultural use of that system is a perversion. Let me add the following contrasted examples of Latin and English adjectives, the first taken from a catalogue, the latter representing the same in our vernacular:

- Petunia grandiflora* kermesina.
- P. grandiflora* maculata inimitabile.
- Petunia* hybrida.
- P. hybrida* grandiflora fimbriata flore pleno.
- P. hybrida* nana compacta multiflora.
- Petunia*.
- Large-flowered, carmine.
- spotted.
- Hybrid.
- large-flowered, fimbriated, double.
- dwarf, compact, many-flowered.

The latter example answers every purpose of the Latin jargon, while it is more intelligible and does not mislead. This loose common use of Latin words often, if not generally, results in the suppression of the true name of the plant. No such plants exist as *Petunia grandiflora* and *P. hybrida*. These names are

true. The very trinity of excellence in the binomial system,—accuracy, perspicuity, elegance,—falls by this method into confusion and repulsiveness.

The substitution of English names for Latin in cultural varieties is not a new desire. The recommendation has often been made, especially in Europe.

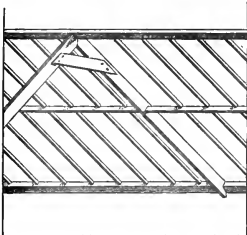
If Latin adjectives are still dear to the gardener, let him at least use the proper specific name and then separate his superlatives from it by a comma, that we may know where accuracy ends and inaccuracy begins. I should prefer the comma to the word variety or its abbreviation, as, in nomenclature, this word should be reserved to the botanist. In a former paper upon this subject, I advised the substitution of the word *forma* for variety, but, for several reasons, I should now prefer the use of the word *hortensis* (abbr. hort.). We might write *Juniperus Sabina* hort. variegata.

Undoubtedly the best method, however, is to drop the Latin entirely beyond the use made of it in legitimate nomenclature. Societies could inaugurate reformation by adopting two rules:—

1. Use only English names for cultural varieties.
2. Admit none of the Latin names in society reports.

Michigan Agr'l. College.

CANNA NEWTONII.—This variety grows about the same as *C. Elmannii*; the flowers are a little smaller, but are a more brilliant color. I have found it a very desirable variety. W.



GREENHOUSE CONSTRUCTION.

Greenhouse Construction.

When we build a greenhouse we seek to make the roof as strong and at the same time as free from obstructions to light as possible, and on a recent visit to the greenhouses of Mr. Chas. Reissig, near Chicago, we noticed a new roof on one of the houses that seemed to combine these two essentials to a considerable extent. The accompanying sketch shows the principle which, though probably not entirely new, yet is probably so to many of our readers. The rafters are 2x6 and nine feet long and are placed ten feet apart. The support under the sash bars is 1x3 inches, stands on edge, and extends from one rafter to another; it is mortised to admit the sash-bars about half an inch. By using this support very much lighter sash-bars may be used and the roof still be stiffer than one where heavier bars are used without the cross support, and the roof will admit more light, which is, of course, an important point.

Why We Organize.

REMARKS OF ROBT. J. HALLIDAY, PRESIDENT OF THE HORTICULTURAL CLUB, OF BALTIMORE, ON TAKING THE CHAIR AT MEETING OF APRIL 19.

For the first time in the history of co-operative effort in this section the practical horticulturists have united to promote their own interests; to advance, elevate and further their business; to become better acquainted with each other; to take steps to advance education, afford information, exchange experiences and views, and to give to each other a helping hand and encouraging and fraternal support in social and business affairs.

We do not live at each others expense; our interests are common, our aims mutual. It is for us to expand business relations, to widen and increase the demand for our products, to better advise the public what it wants, or ought to want, and *what we have to sell*. There is no selfishness in this; this is *business*; this is the "trade secret" of to-day. Nurse and stimulate a want, and then be prepared to supply it! Do not wait for the public to buy a thing; do not linger in the back ground and expect the masses to cry for Easter flowers, or Christmas flowers, but point out what our communities are doing, and inspire a fondness for floral decorations here, as in other places, and be prepared, as Mr. Pentland said, in his address two weeks ago, to take advantage of the boom that is sure to come to us; as civilization, luxury and refinement advance.

But let us remember that an empty bag don't stand up; let us keep up with the times; let us accumulate knowledge; let us know what progress is being made; what our fellows in the trade are doing. We must advance or go backward. There is no standing still. We have intelligence enough, brightness enough, in the gardening material around us here to keep pace with any community. Let us take steps to begin, on however modest a scale, our horticultural library. This is an important part of our programme. There is nothing that comes before it in value. We owe it as a duty to ourselves; to the young men who are coming on and are of us; to the learners. A few books will open the way to what may be, ought to be, a future useful, indeed, a noble collection of these helps to the gardener's trade.

We must not drop out of sight the proposed beneficial features of our club. These were looked forward to with eager hopes of usefulness by some of its promoters. For myself, I favor them strongly, and I commend their careful maturing to your consideration, believing they will be a help to us, and to make the organization stronger and more servicable.

To conclude my imperfect remarks; To give ample force and influence, we need the strength which comes of numbers. Do not remain satisfied until our roll includes all the gardeners within reach, whatever their sphere of activity, who can do us good, or benefit themselves by joining our association. This is a mutual organization, and we must expect to both give and receive.

Notes From the Gardeners' Chronicle.

PRIMULAS.—Seeds should be sown in shallow pans or well-drained pots filled with a fine compost of light loam, leaf-soil, and a fair amount of sand. The soil should be firmly pressed and watered, allowing it to drain previous to sowing the seeds, which should be very slightly covered with some of the finest of the

compost, and nicely pressed down to incline the seeds. A piece of glass or tile should then be placed over the pan, and if the pans are placed in an intermediate temperature watering may not be necessary until the plants appear, at which stage the tile or glass must be removed. As soon as a rough leaf is fully developed the plants should be pricked out in pans or potted singly in thumb-pots. Good strains are now numerous, and great variety may be obtained. Seeds of *P. obconica* should likewise be sown at the present time; this is a very desirable free-flowering greenhouse plant, useful alike for decorative and cutting purposes. H. W. W.

THE EUCARIS.—These beautiful flowering bulbs are impatient at being much disturbed, and so long as specimens remain in perfect health it is not advisable to repot them unless it be for the purpose of increasing the stock. The best time to repot is during their resting season. When those that require a shift should be removed, soil removed, and be placed in pots a good size larger than those they are turned out of, the tops of the bulbs being kept well up to the surface of the soil, which should be rammed tolerably firm without doing injury to the roots. We have just completed potting our plants of *E. amazonica*, which have not been interfered with for some few years; a portion of these has lately shown signs of debility, and on being examined it was found that many of the bulbs had become too deeply imbedded in the soil, and the compost pasty. We separated the bulbs, removing the soil with as little disturbance to the roots as possible, and after sorting the bulbs the strongest were planted closely together in thoroughly-drained large pots, while the small ones were put into 8-inch pots. Plants so treated should be afforded a brisk growing temperature, and bottom heat if that is at command, and must be very carefully shaded until established, and not be over-watered. Although *E. candida*, *E. Mastersii*, and *E. Sanderiana* are not such effective plants as *E. amazonica*, they are clastic flowers, and useful for cutting. The soil that suits the *eucaris* is a fibry loam mixed with moderate quantities of sand and fibry peat.

H. W. W.

HEATHS.—I am glad to see the subject of heaths for cut-flowers taken up by your correspondents, but must take exception to the statement of Mr. Sanders as to the undesirability of *E. Willmorei* for the purpose. I am informed by a prominent Philadelphia firm that they could use a thousand plants of this variety, if to be had. E. L.

HOW MANY florists have sold vases filled with fuchsias, begonias and ferns to some customer to set on his (stone) lawn before a brick house with a south front?

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order.

SITUATION WANTED. By a single man, in a rose and cut-flower growing place, can give six years experience 10 cents a line (seven words) each insertion. C. E. care James Hart, 117 W. 20th st., New York City.

SITUATION WANTED. By a soldier, competent to grow roses, as rose or plant grower; 10 years experience 10 cents a line (seven words) each insertion. C. M. VAUGHN, cor. 154th and 7th ave., New York, N. Y.

SITUATION WANTED. By an Englishman, single, 25 years of age, as gardener, understands the cultivation of ornamental flowers, grasses, also management of stove greenhouse plants. Address THOMAS JONES, Colchester, Melbourn, co., Ill.

SITUATION. By an active, sober and competent gardener, twelve years experience, best references, desires change of gentleman's place. Address, S. S. SAGER, Kensington, Ill.

SITUATION WANTED. As gardener or foreman in a first-class private place, or as a nurseryman, understands rose growing and all other flowers, forcing of all kinds, and fruit and vegetables from one of the largest private places in the U. S. S. S. Address, 222, care American Florist, Chicago.

SITUATION WANTED. As assistant or salesman; understands sale of everything pertaining to the business, including plants, and has extensive and capable merchant; good knowledge of greenhouse management, and all other branches of floriculture. Address, A. C. C., care Mrs. E. A. Whitten, 776 Republic st., Cleveland, O.

SITUATION WANTED. Where the services of a man and an established business, good references. Have had charge, and managed with success, some of the largest commercial and private places in Europe and America; twenty-six years experience, eighteen of which has been spent in commercial places. Country of New York or Philadelphia preferred; small family. Address, R. E. BERRY, care W. J. Stewart, Boston, Mass.

WANTED. To purchase or rent, a good greenhouse and plant, must be cheap. Give full particulars. W. F. BENNETT, 32 Maiden Lane, N. Y.

WANTED. An experienced rose grower and propagator, competent to act as foreman in greenhouse, extensive experience, must be capable of business, also wages expected. J. D. RAYNOLDS, Riverside, Ill.

WANTED. A man of sober and industrious habits, that understands the shipping trade, and all branches of propagating soft and hard wooded plants, especially Rose, in connection with best of reference need apply. Address, H. C. BROWN, 1000 Broadway, N. Y.

FOR SALE. 300 Fran E. Topfer, or Storm King Fuchsia plants, 10 inches high, in 34th, pots, \$2.00 each. F. D. DUFFY, Zanesville, Ohio.

FOR RENT. Desirable greenhouses with some land and an established business; good retail trade in cut flowers; just the place for a market gardener. Address, SPRING, care Am. Florist.

FOR SALE. 2000 Storm King Fran Emma Topfer Fuchsia extra large, in 34th, pots, \$1.25 per dozen; \$8.00 per 100; \$5.00 per 100. Address, JOSEPH E. BONSALE, Salem, Ohio.

FOR SALE. Most desirable florist business in the West, including the shipping trade, and a location of city 4000. Sole reason for selling, failing health. Address, WESTERN, care American Florist.

FOR SALE. Carnations, Peter Henderson, Scarlet and White, 2000—2500—3000—4000—5000—6000—7000—8000—9000—10000—11000—12000—13000—14000—15000—16000—17000—18000—19000—20000—21000—22000—23000—24000—25000—26000—27000—28000—29000—30000—31000—32000—33000—34000—35000—36000—37000—38000—39000—40000—41000—42000—43000—44000—45000—46000—47000—48000—49000—50000—51000—52000—53000—54000—55000—56000—57000—58000—59000—60000—61000—62000—63000—64000—65000—66000—67000—68000—69000—70000—71000—72000—73000—74000—75000—76000—77000—78000—79000—80000—81000—82000—83000—84000—85000—86000—87000—88000—89000—90000—91000—92000—93000—94000—95000—96000—97000—98000—99000—100000—101000—102000—103000—104000—105000—106000—107000—108000—109000—110000—111000—112000—113000—114000—115000—116000—117000—118000—119000—120000—121000—122000—123000—124000—125000—126000—127000—128000—129000—130000—131000—132000—133000—134000—135000—136000—137000—138000—139000—140000—141000—142000—143000—144000—145000—146000—147000—148000—149000—150000—151000—152000—153000—154000—155000—156000—157000—158000—159000—160000—161000—162000—163000—164000—165000—166000—167000—168000—169000—170000—171000—172000—173000—174000—175000—176000—177000—178000—179000—180000—181000—182000—183000—184000—185000—186000—187000—188000—189000—190000—191000—192000—193000—194000—195000—196000—197000—198000—199000—200000—201000—202000—203000—204000—205000—206000—207000—208000—209000—210000—211000—212000—213000—214000—215000—216000—217000—218000—219000—220000—221000—222000—223000—224000—225000—226000—227000—228000—229000—230000—231000—232000—233000—234000—235000—236000—237000—238000—239000—240000—241000—242000—243000—244000—245000—246000—247000—248000—249000—250000—251000—252000—253000—254000—255000—256000—257000—258000—259000—260000—261000—262000—263000—264000—265000—266000—267000—268000—269000—270000—271000—272000—273000—274000—275000—276000—277000—278000—279000—280000—281000—282000—283000—284000—285000—286000—287000—288000—289000—290000—291000—292000—293000—294000—295000—296000—297000—298000—299000—300000—301000—302000—303000—304000—305000—306000—307000—308000—309000—310000—311000—312000—313000—314000—315000—316000—317000—318000—319000—320000—321000—322000—323000—324000—325000—326000—327000—328000—329000—330000—331000—332000—333000—334000—335000—336000—337000—338000—339000—340000—341000—342000—343000—344000—345000—346000—347000—348000—349000—350000—351000—352000—353000—354000—355000—356000—357000—358000—359000—360000—361000—362000—363000—364000—365000—366000—367000—368000—369000—370000—371000—372000—373000—374000—375000—376000—377000—378000—379000—380000—381000—382000—383000—384000—385000—386000—387000—388000—389000—390000—391000—392000—393000—394000—395000—396000—397000—398000—399000—400000—401000—402000—403000—404000—405000—406000—407000—408000—409000—410000—411000—412000—413000—414000—415000—416000—417000—418000—419000—420000—421000—422000—423000—424000—425000—426000—427000—428000—429000—430000—431000—432000—433000—434000—435000—436000—437000—438000—439000—440000—441000—442000—443000—444000—445000—446000—447000—448000—449000—450000—451000—452000—453000—454000—455000—456000—457000—458000—459000—460000—461000—462000—463000—464000—465000—466000—467000—468000—469000—470000—471000—472000—473000—474000—475000—476000—477000—478000—479000—480000—481000—482000—483000—484000—485000—486000—487000—488000—489000—490000—491000—492000—493000—494000—495000—496000—497000—498000—499000—500000—501000—502000—503000—504000—505000—506000—507000—508000—509000—510000—511000—512000—513000—514000—515000—516000—517000—518000—519000—520000—521000—522000—523000—524000—525000—526000—527000—528000—529000—530000—531000—532000—533000—534000—535000—536000—537000—538000—539000—540000—541000—542000—543000—544000—545000—546000—547000—548000—549000—550000—551000—552000—553000—554000—555000—556000—557000—558000—559000—560000—561000—562000—563000—564000—565000—566000—567000—568000—569000—570000—571000—572000—573000—574000—575000—576000—577000—578000—579000—580000—581000—582000—583000—584000—585000—586000—587000—588000—589000—590000—591000—592000—593000—594000—595000—596000—597000—598000—599000—600000—601000—602000—603000—604000—605000—606000—607000—608000—609000—610000—611000—612000—613000—614000—615000—616000—617000—618000—619000—620000—621000—622000—623000—624000—625000—626000—627000—628000—629000—630000—631000—632000—633000—634000—635000—636000—637000—638000—639000—640000—641000—642000—643000—644000—645000—646000—647000—648000—649000—650000—651000—652000—653000—654000—655000—656000—657000—658000—659000—660000—661000—662000—663000—664000—665000—666000—667000—668000—669000—670000—671000—672000—673000—674000—675000—676000—677000—678000—679000—680000—681000—682000—683000—684000—685000—686000—687000—688000—689000—690000—691000—692000—693000—694000—695000—696000—697000—698000—699000—700000—701000—702000—703000—704000—705000—706000—707000—708000—709000—710000—711000—712000—713000—714000—715000—716000—717000—718000—719000—720000—721000—722000—723000—724000—725000—726000—727000—728000—729000—73000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New Roses of 1886.

AMERICAN BEAUTY,
W. F. BENNETT,
THE BRIDE,

Also new Roses of the present year.

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COMTESSE DE FRIGNEUSE,
MARQUIS DE VIVENS,

and all other choice and standard varieties in very fine plants at lowest rates for first-class stock. Special quotations for large quantities on application to

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Rose Grower,

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The new French Geraniums for 1886 will be ready for shipment September 15. Twelve of the very finest out of this year's new ones.

Glory of France, Renan, Sergeant Bobillot, Arc-en-Ciel, etc.

The New Roses embrace some very promising varieties.

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Send for descriptive list and wholesale price list of other choice stock.

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THE GRAND NEW TEA ROSE

"Comtesse de Frigneuse"

This Rose is probably the best ever raised for florist's work; the bud is of "Niphotos" or "Bennet" shape, color of "M. Neil," and rather larger than a duck's egg; a perpetual bloomer.

I am now looking orders for delivery from March to May, of this rose, as well as of the grand new Hybrid,

"CLARA COCHET."

All the new Roses of Autumn, 1886, will be ready for delivery in March.

My Catalogue of these, as well as my general Catalogue, free on application. Seven first-class certificates, the greatest number ever awarded to any one rose. Chromo-litho. plate of this superb Rose, mailed free on application.

H. P. Lady Helen Stewart, crimson-scarlet, is thoroughly distinct and superior. For autumn bloom this variety is unsurpassed.

TEA Rose Edith Brownlow, a truly grand and free-flowering Tea Rose. This variety is possessed of greater lasting properties than any variety with which we are acquainted. Awarded six first-class certificates.

PRICE 10¢ (ten shillings and six pence). Set of three varieties 25¢ (twenty-seven shillings) each. Descriptive Lists on application.

A great demand for these Sterling Roses being anticipated, it is particularly requested that all who require a supply will order as early as possible, to prevent disappointment.

The Royal Nurseries,

NEWTOWNS, Co. Down, Ireland.

1887.

ROSES FOR FLORISTS.

1887.

We offer the largest and most complete stock of Roses in this country, eight 2½ in. plants. Propagated from thoroughly matured field-grown plants, and grown in ordinary soil without manure or any other stimulating material. They resist disease, start quickly, grow rapidly, and give best results.

ALL THE LEADING VARIETIES in large supply at very reasonable prices—Am. Beauty, Papa Gontier, H. P. Bennett, The Bride, Her Majesty, La France, Goul. Jacq., Perte des Jardins, Niphotos, C. Mermets, M. Robert, Perle des Jardins, etc.

THE NEW ROSES OF '86.—Comtesse de Frigneuse (Golden Pearl), Son. de Victor Hugo, Marquise de Vivens, Camille Roux, Marguerite de Rumi, Flacon d'Indule, Exquisite, Houas de Chouart, Mad. David, Claudine Leger, Edmond de Rouart, Suzanne Blanche, Souvenir de Admiral Cornet, Comtesse George de Knappe, Dussan. Set of 14 for \$5, and very reasonable per dozen and hundred.

HYDRANGEA GRANDIFLORA.—Specialty—Immense Stock.—New open ground plant, cuttings, etc. Japan Japonica, New White Wiegela Canada, Wiegela Barlowia Nova, Japan Snow Ball (Viburnum plicatum), Kosa Rugosa, and a full line of all the best Hardy Shrubby and Climbing Lines, including Ampelopsis Velutina (Boston Ivy), Arbutus Quinata, Sweet-Scented Honey-suckle, etc.

Special Wholesale Price List free on application, to Florists, Market Gardeners and Dealers only. Lists priced, special selections made, correspondence solicited. Address,

THE DINGEE & CONARD CO.,

ROSE GROWERS,

WEST GROVE, CHESTER CO., PA.

A LARGE STOCK OF

FINE ROSES

For Bedding and Florists' use, including

AMERICAN BEAUTY,

PERLE DES JARDINS,

MERMETS,

NIPHOTOS,

SOUV. DE MALMAISON,

QUEEN OF BEDDERS,

SOUV. DE L'UN AMI,

CORNELLIA COOK.

Also a fine stock of different varieties of Hybrids in 2½ to 3-in. pots.

For prices, etc., address

FOREST GLEN FLORAL CO.,

173 WABASH AVENUE, CHICAGO.

:- ROSES :-

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FLORISTS' STOCK.

Our Summer Trade List is now ready, and will be sent to all applicants.

MILLER & HUNT,

Wright's Grove, Chicago.

:- ROSES :-

We have of the following, Tea and Hybrid:

TEA ROSES, a fine lot of plants in 3 and 4-in. pots. They are all grafted last fall, ready for shipping now, on seedling layer roots. Perle des Jardins, Niphotos, C. Mermets, 25 cts. each; \$3.00 per dozen, \$3.00 per 100. French W. F. Bennett, 25 cts. each, \$3.00 per dozen, \$3.00 per 100. Lancer plants, \$5.00 per 100.

NEW :- ROSES.

Bride, Sunset, Am. Beauty, Grace Darling, Souv. de Victor Hugo, Camille Roux, red; M. sus. Blanchet, pink, Marquise de Vivens, rose, 40 cts. each, \$4.00 per dozen, \$4.00 per 100. Sent with catalogue.

SCHULTHEIS BROS.,

P. O. Box 78, COLLEGE POINT, L. I.

10,000

ECHIVERIAS SECUNDA GLAUCA,

Per 100, \$3.00.

CHARLES HEINZ, Sharon, Pa.

10,000 ROSES,

20,000 BEDDING PLANTS,

Including the choicest varieties, and grown from good healthy stock, in 2½, 3 and 4-in. pots, and will be sold at bottom prices. Also 300 Prairie Queen roses, in 3 and 4-in. pots, and greenhouse ferns, with granite bars and doors complete, that I will dispose of cheap. No catalogue. For particulars address

W. T. HILLBORN, Florist,
NEWTOWN, Bucks Co., PA.

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AT CLAYMONT, DEL.

On the P. W. & B. R. R. (15 miles below Philadelphia) fine greenhouses and small cottage.

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ARTHUR M. BURTON,
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THE NEW ROSES,

American Beauty, Bride, Her Majesty,

W. F. Bennett, Papa Gontier,

Also good plants of the best leading varieties of Teas, H. Teas, H. Perpetuals and a general collection of greenhouse and bedding plants at a very low price. Send for prices.

JACOB SCHULZ,

1325 E. BROADWAY, LOUISVILLE, KY.

ROSES

Mermets, Niphotos, Boule de Neige, Saturnus and Isabella sprout, from 3-inch pots, \$4.00 per 100.

CARNATIONS

Peerless, Hume's White, DeGraw, Snow Flake, Alzette and White-lille from 3-inch pots \$4.00 per 100. Rooted Cuttings of the above named varieties \$2.00 per 100.

JAMES HOBAN, Florist,

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PAPER SEED BAGS

For Flower and Vegetable Seeds,
CLARK BROTHERS, Manufacturers, 61 Ann St. N. Y.

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Wedding Decoration at San Francisco.

The floral decorations at the wedding of Mr. Chas. Alexander to Miss Harriet Crocker, daughter of the railroad millionaire, at San Francisco, April 26, are described by the *Examiner* of that city to have been the most magnificent ever seen on a similar occasion in that city. The *Examiner* says:

Passing in from the main entrance beneath an archway of ferns and flowers, the spectator found himself standing in the midst of what might have been a section from the forest of a greenhouse. Long festoons of evergreen drooped from overhead, draping aside and looped to the wall on every side, while the many-buffed lights in the great north window were also crossed and recrossed with the same long wreaths of living verdure. The two small windows immediately beneath were simply buried in massive banks of flowers, built up from the broad ledges until but little of the glass remained visible to the eye, while from them on either side along the top of the wainscoting ran a line of calla lilies, their snowy whiteness relieved by leaves and an occasional bud of color. This border of flowers ran directly around the church, connecting the piled beds of flowers with the sills of the great windows opening through the side walls of the church.

At the entrance to the main aisle which traverses the nave of the church, a lofty arch formed of snowy hawthorn and orange blossoms, bedded in the deep and glossy green of magnificent fern leaves, while to either side of the narrow passages traversing the aisles of the church it was also necessary to pass beneath other arches similar to the first, except that they were smaller and the white hawthorn blossoms varied with violet, purple and crimson cinerarias. At the apex of each of the three arches was a snowy cluster of lilies.

The eight triple columns supporting the lofty arch of the nave were faced with pillars of calla lilies, extending from the base of the column above, while from the point of every archway, whether aligned with the length of the building or crossing it, hung long wreaths of evergreen looped to the sides and crossed by others suspended from the capitals of the columns.

Upon the eastern side of the chancel rail a beautiful screen of ferns half hid the altar from view, such of it as remained visible being profusely decorated with flowers, interspersed with rays of green. Upon the two sides of the font, with its lofty and beautiful canopy, stood in the midst of a bower of green, with its base thickly buried in ferns and other foliage by others of scarlet and crimson, while the cornices and doorways of the retiring room were massively decked in green.

But striking and beautiful as was all that has thus far been referred to, it served after all but to lead up to the preparation of the altar, for the magnificence which was visible within and without the chancel and the altar. Here indeed nature seemed to have exhausted her storehouse of beauty and bloom, and the artist and designer all his art and skill. Before the altar space a temporary railing had been erected, but of this nothing was visible but a massive bank of flowers, crimson and snow-white roses intermingled with blossoms of azure, of purple and orange, and the deep green of ferns, and the double calla swung easily upon their hinges, though each was but a solid mass of roses, bedded so thickly together that no light could penetrate. A turnstile to the right of the gateway had been treated in like manner, the cross bars as well as the pivot being buried in roses. To enter the chancel through either of these gates of bloom was to find oneself surrounded on every side with beauty and verdure. Along the side walls and the backs of the seats on either side ran lines of calla lilies, while the slender wire screen crossing the back of the chancel had assumed massive proportions and stood like a solid wall of fragrance and beauty, everything of its original shape and outline being lost to view beneath the profusion of roses, carnations, camellias and cinerarias by which it was concealed.

Above this beautiful barrier, suspended upon invisible wires, hung the "Bridal Veil," well worthy to be considered, even among all this regalia and beauty, the most beautiful. It was framed entirely of delicate sprays of smilax, four hundred yards entering into its construction, and extended straight to the ceiling, faintly veiling in its airy loveliness the wreathed and garlanded panels of the altar beneath the great window in the wall beyond. There are seven of these sprays, and each one stood a massive floral piece, representing a vase, formed of calla lilies, roses and daisies, and supporting a beautiful spray of lilies and carnations. In the two rear corners of the chancel stood lofty floral tablets. The massive profusion of flowers with which they were formed was surrounded by the simple elegance of design and structure. Contrary to ancient custom, there was no "mar-

riage bell," but the intertwined monogram of the bride and groom, the letters "A. C." stood upon a stand within the chancel and immediately beside the station of the officiating clergyman. The letter "A" was formed of roses of crimson and pink, while the bride's initial was composed of La Marque roses and white lilies. The whole was a superb production, and fitting to be a central feature of the ceremony and perfect system of decoration. During the performance of the ceremony the veil of smilax was drawn to the center, just above the altar, and through the arch thus formed could be seen tapers burning in the candelabra.

It is stated to have been noted that there has never before been anything in this city equalling the plan of decoration here-with described, and which was only carried to perfection at an immense expenditure of labor and money.

Boston.

Good roses are rather scarce. Carnations are abundant, and smilax is beginning to come in more plentifully.

The florists are already looking forward to their annual excursion, which will take place in the latter part of July. It will be under the auspices of the Gardeners' and Florists' Club this year.

A very fine plant of *Dendrobium thyrsiflorum*, bearing three spikes of bloom, was shown at Horticultural hall recently by David Allan. Mr. Allan has grown the plant for nine years, having begun with a little piece in a 3-inch pot.

The annual rose and strawberry show of the Mass. Hort. society occurs on June 21 and 22. Prizes are offered for flowers to the amount of \$500, and for fruit about \$300. The rose premiums are confined to hardy perpetual varieties, with the exception of two small prizes for hybrid teas. Roses of the tea section are entirely overlooked.

Unusually dry and hot weather has hurried the spring blooming shrubbery, etc., along so rapidly that the outlook for Decoration day supplies is very uncertain. Lilies, double tulips, *Narcissus poeticus*, etc., which have always been largely used for Memorial day, will be scarce this year. The crop of double white stocks about here just now is enormous, and will help to fill up a large gap.

The auction sales of plants are now at their height. There are four sales every week, each sale averaging probably 15,000 plants. A great many plant growers are raising largely for the auction sales, as it has been found that the plants bring nearly the regular retail prices, and the advantage of cleaning them out quickly in large lots is apparent, as time and labor in watering plants and waiting on small customers are avoided. These sales continue till about June 15. W. J. S.

New York Retail Prices.

Perles, Niphetos and Souvs., \$1; Mertens, \$1.50; Bennett's, La France, \$1.25; Cooks, \$2; Jacques, \$1.50; \$2; Don Silenus, 50 cents; \$1.50; \$2; American Beauty and hybrids, 15 to 50 cents each. Carnations, 50 cents a dozen.

SOME SAMPLE WHOLESALE FLOWER TELEGRAMS.—"Twenty tea roses nice baby's funeral." "Send one cross girl ten years old." Punctuation might make the meanings more clear.

NEW CARNATION.—MESSRS. L. Temple & Sons, Calla, O., send a bloom of their new carnation, "Old Gold." The flower is of good form and substance, and the color is well described by its appropriate name. If it possesses the necessary freedom of bloom and strength of constitution, it will be of value.

Chicago.

Ficoles are quite small and of poor quality this season.

Henry Pantelcock has opened a floral store at 380 Lincoln avenue.

A few water lilies are coming in, and are retailed at fifty cents a dozen.

Rex & Lange, 72 north Clark street, have closed up and gone out of business.

Flowers are now retailed at following prices: Perles and Niphetos, \$1; Mertens, \$1.50; Jacques, \$2; American Beauty and hybrids, \$3; Rons, 75 cents; carnations, 25 cents, and peonies, \$1.50 and \$2 a dozen.

A large dry goods establishment made a very elaborate plant decoration a feature of their annual opening recently.

A heavy hail storm passed over Highland Park, twenty miles north of the city, May 22, wrecking 3,000 feet of glass on the greenhouses of Mr. W. W. Boyington. Mr. B. states that nearly every light of single-thick glass on the place was broken, while on several houses glazed with double thick glass hardly a light was cracked.

A dozen blooms of the Puritan rose were on exhibition at the office of the Florist May 21, and were viewed by quite a number of growers. Some expressed confidence that the rose would become a standard sort, while others were of the opinion that a pure white hybrid would not sell to advantage as cut bloom, though all concurred that the flower was a handsome one, and that the beautiful foliage would assist materially in making it of value.

New York.

Klunder opens at Newport June 11. The Beers Bros. open their Lenox branch in June.

C. F. Klunder sails for Europe July 3, in search of floral novelties.

The New York Horticultural society's spring exhibition only netted \$60 after expenses were covered.

Jacob Iebus has removed from Broadway, corner of Twenty-third street, to a location on east Twenty-third street.

The steamer trade has been enormous thus far; the demand for funeral flowers has been double this year that of last.

Mrs. John Thorpe has been very ill at the Carleton house, New York, with pneumonia. She is now convalescing.

Hanft Bros. have made an elegant immortal memorial design for the grave of a lad who was drowned. It is the badge of the "Sons of Veterans."

Mr. Frank Hamilton has had several orders to duplicate the "beard" which Mrs. Langry's taste taboored in the floral design which took the second prize.

Among the largest buyers at the combination orchid sale which lately took place were Messrs. Pitcher, Carpenter, Graves, Barr and Wallace. Wm. C. Wilson and Mr. Ingraham, of Astoria, were also liberal purchasers.

Wm. Grey, of Kenwood, has been laying out a summer seat at Bar Harbor, Maine, for Mr. Erastus Conning. Mr. Grey writes thus to Wm. Elliott: "But what a country! One day he rains, and the next day he snows!"

The fallacy of holding a floral exhibition in connection with a wax-work show has been fully illustrated. The New York press have heretofore been particularly generous to the horticultural society; business methods did not permit, however, their giving much free advertising to the Eden museum.

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Inch, \$1.40; Column, \$1.00.
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FLORIST is for Florists, Seedsmen, and Dealers in
wares pertaining to those lines ONLY. Please to
remember it.For Advertisements for June 15 issue must
REACH US by noon, June 9. Address,

THE AMERICAN FLORIST CO., Chicago.

Catalogues Received.

Bakker Bros., Bennebroek, Holland,
Dutch bulbs; Berchert & Co., Sassen-
heim, Holland, Dutch bulbs. C. H.
Joosten, New York, bulbs, plants and
seeds; Witter & Co., Denver, Colo.,
plants; P. van Waveren, Jz., & Co., Hil-
legom, Holland, Dutch bulbs.If you want your section represented
in our report of Decoration trade in next
issue, send a report yourself at once on
receipt of this issue.CARNATIONS.—I see a statement in the
last issue of the FLORIST that the De
Graw carnation has had its day. I mail
you samples of mine cut from plants that
have been in heavy crop all the season
and are now heavy with bud and bloom.
Also the same of La Purite. First crop
of De Graws came up ninety-five per
cent long stems. C. B. HUMPHREY.

Walesville, N. Y.

[The bloom sent were of fair quality,
but were not up to the standard of what
a first-class carnation should be. Com-
pared to the blooms of Himes's White
and Garfield referred to in note men-
tioned by our correspondent, they would
present but a sorry appearance. Ed.]A LEGAL CASE of considerable interest
to florists has recently been decided by
an English court. The case arose from
the following circumstances, the account of
which is taken from the London
Daily News:The defendant was a grower of flowers for
market, at St. Clears in Carmarthenshire, and
in the autumn of 1884 he purchased of Mr. Schultz,
a grower at Irtley, 10,000 bulbs or "crowns" of
lily of the valley, with the intent of forcing them
for flowers for the Christmas market. The terms
were that the bulbs should be of the first quality
and have flowers in them, that one-third of the
price should be paid in cash, and the remainder
in six months; 50,000 bulbs were sent over on
Oct. 27, and £50 was paid. On Nov. 5, 10,000 more
were sent, and the case for the plaintiff was that
£175 10s. was due for them, and a small amount
for interest in addition.The substance of the case for the plaintiffs
was, that to be of first quality and in flower the
bulbs must be three years old, and that the
plaintiff answered this description. A skilled
person, it was said, could, by looking at the
bulbs, see whether they had flowers in them,
and that those in question were examined and
found to be flowering plants. A good deal of
evidence was given as to the way in which the
flowers should be forced for the early market,
and something also was said as to the frost
damaging the bulbs when they were in the open
ground.For the defense it was said that the bulbs were
not of the quality bargained for, and were really
about a year-old plants. About 75 per cent of
them, it was said, did not flower, whilst if the
plants had been good, the percentage of flower-
ing bulbs should have been from 75 to 80 per
cent. Other evidence was that 40 to 50 per cent
was a fair proportion of flowering plants. Mr.
Justice Willes, in summing up, said that the
plaintiff belonged to a class of cases that was always
difficult to decide; for on behalf of each party
there was made out a case that the jury, by itself,
seemed to be unanswerable, whilst, of course,
one or the other must be wrong, because the
two were inconsistent. The jury, having heard all
the evidence, must say what conclusion they had
come to upon it. The jury, having considered the
matter for twenty minutes, gave a verdict for the
plaintiffs for £175 10s. and his lordship gave
judgment in accordance with the finding.

Wholesale Market.

Cut Flowers.

	BOSTON, May 22.
Roses, Teas.	\$1.00 to 2.00
" Perles, Niphotos.	4.00
" Mermets.	4.00
" Jacques.	12.00 to 14.00
Carnations.	2.00
Stocks.	1.00
Callas.	10.00
Adiantums.	1.50
Saxif.	20.00
Will advance for Memorial Day.	

	NEW YORK, May 22.
Roses, Teas.	\$1.00 to 2.00
" Perles, Niphotos.	4.00
" Mermets.	4.00
" Bon Silences.	8.00
" Jacques.	8.00
" Benets.	8.00
" Brides.	8.00
" Am. Beauty.	25.00
Carnations, long stems.	1.00
" short stems.	.50
Lily of the valley.	2.00
Mignonette.	10.00
Calladus.	10.00
Violas.	50 to 75

	CHICAGO, May 26.
Roses, Teas.	\$1.00 to 2.00
" Perles, Niphotos.	4.00
" Mermets.	4.00
" Jacques.	12.00 to 14.00
" Ben Silences.	8.00
" Benets.	8.00
" Brides.	8.00
" Am. Beauty.	25.00
Carnations, long stems.	1.00
" short stems.	.50
Lily of the valley.	2.00
Mignonette.	10.00
Calladus.	10.00
Violas.	50 to 75

	PHILADELPHIA, May 23.
Roses, Teas.	\$1.00 to 2.00
" Perles, Niphotos.	4.00
" Mermets.	4.00
" Jacques.	12.00 to 14.00
" Ben Silences.	8.00
" Benets.	8.00
" Brides.	8.00
" Am. Beauty.	25.00
Carnations, long stems.	1.00
" short stems.	.50
Lily of the valley.	2.00 to 60
Mignonette.	10.00
Calladus.	10.00
Violas.	50 to 75

Business slow. Flowers plentiful.

Wm. J. Stewart,

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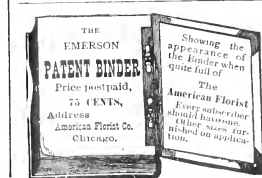
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quills and good assortment of other choice flowers
shipped in any desired quantity on short notice.

Seed Trade.

THE SEED TRADE ASSOCIATION.—John Potter, Jr., president; F. E. McAlister and W. Allen Burpee, vice presidents; Albert McCullough, Cincinnati, secretary and treasurer. The fifth annual meeting will be held at Philadelphia, June 14, 1897.

S. F. LEONARD, Chicago, removes to a better store at 149 west Randolph street.

A CORRESPONDENT WRITES: "Reliable seeds at honest prices" do not seem to be in demand, judging from the announcement of the La Plume, Pa., firm, which has certainly advertised them very extensively this season."

SECRETARY McCULLOUGH advises us that the Continental Hotel, Philadelphia, has been selected as headquarters for the seedsmen's meeting in that city, June 14, 15 and 16. The sessions will be held in board of trade rooms, Mercantile library building, Tenth street, above Chestnut, and indications are for a full and enthusiastic meeting.

Trade Notes.

LANCASTER, N. Y.—W. J. Palmer is building a first-class rose house, 220x18.

BUFFALO, N. Y.—Wm. Scott is making preparations to build a fine house for palms.

DURHAM, IA.—Wm. Springborn is building three new houses—one 20x100, another 20x80, and the third 15x30.

MILWAUKEE.—Miss A. G. Coughlin, 432 Milwaukee street, has opened a floral store in connection with her hair dressing establishment.

CORFU, N. Y.—E. M. Giddings is building three new carnation houses; one 150x21, another 85x21, and another 40x11. Mr. Chas. Tyrell is preparing to build a 60-foot carnation house.

GERMANTOWN, PA.—A feature of the May meeting of the horticultural society was the large display of wild flowers. E. C. Jellet had one hundred and twenty specimens on the tables, and Joseph Meehan, seventy.

XENIA, O.—This neighborhood was visited by a severe hail-storm May 12. J. J. Lampert, E. Bonner & Co. and the Soldiers' and Sailors' Orphans' home all lost more or less glass. The latter had a large quantity of plants bedded out, which were badly used up.

PITTSBURGH.—An elaborate exhibition of rhododendrons was made by the B. A. Elliott Co. at the Penn building, May 23-28. Some 4,000 blooming plants were arranged in sloping banks, and made a gorgeous sight. Over 200 varieties were shown, all being plants imported from England.

TACOMA, WASH. TER.—At a meeting of leading horticulturists held May 7, the Pierce County Hort. society was organized, and officers elected as follows: Henry Bucey, president; A. R. Mann, vice-president; D. C. Stam, secretary, and A. N. Miller, treasurer. A very creditable display of plants and flowers was made at the meeting.

RICHMOND, VA.—Trade was very good the past winter. L. Timberlake has removed to 222 North 4th street, with agent after his name. Rowe Bros. have opened in a confectionery store, 3rd and Broad, and at 711 East Broad street.

Eighteen stores and gardens now to a population of 80,000. W. A. Hammond took out a wrought iron boiler and put in a No. 18 Hitchings corrugated a few weeks ago; he used to retire about 1 o'clock before he made the change. Wide boards set close together in bottom of benches is responsible for a good deal of the club root and weak roots of roses.

W.

BALTIMORE.—At the exhibition of the horticultural society held May 13, Mr. T. Harrison Garrett made an excellent display of orchids. Mr. R. J. Halliday made a fine show of ferns and selaginellas. Among the floral designs were butterflies made entirely of tulips. The colors were admirably placed, and the design looked at a distance much like an oil painting. Among those who received prizes were T. Harrison Garrett, R. J. Halliday, John Cook, W. D. Brackenridge, Henry Bauer, C. Hess, Ernest Hoen, Mrs. August Hoen, John S. Gilman, Hamilton Easter, W. M. Thomas, Mrs. Delahay and Mrs. Margaret Wiener.

SANTA BARBARA, CAL.—The eighth annual "rose festival" held here April 20-23 far exceeded in size and beauty any previous affair of the kind here. Joseph Sexton, of Goleta, made an elaborate display of cut-flowers and designs, showing fresh stock each day. Mrs. T. B. Shepherd, of San Buenaventura, showed a large collection of plants, among which were thirty-five varieties of carnations, twelve of roses, and four of clematis. An amateur exhibited 150 varieties of roses, all labeled. John Spence made an excellent exhibit of plants, and showed a ring six and one-half by three and one-half feet in size, made entirely of roses, ten varieties being used in its construction. He also had on exhibition a collection of rare and beautiful Japanese maple leaves.

SANTA CRUZ, CAL.—The flower festival which opened here May 13 has been a grand success. Seven of the floral booths have devoted each to flowers of one hue. The yellow booth was principally of tea roses—a floral stile, a swinging hammock and a mossy bank down which were tumbling "Jack and Jill," being the leading designs. The front of the red booth represented the arched windows of an old world cathedral, surmounted by three wreaths of red geraniums; at the entrance were beds of scarlet passion flowers and red poppies; other designs were of red roses. Marigolds and a pillar entwined with nasturtiums near a bank of yellow roses were conspicuous at the orange booth. The green booth was arranged to represent an overhanging cliff covered with ferns and flowers; under this was a grotto decked with mosses and ferns. At the blue booth were handsome designs in forget-me-nots, bachelor's buttons, etc. Panels of pink roses and a fine screen made of twelve varieties of roses ornamented the pink booth. An arch of violets over a bed of pansies, supporting lace curtains with violet fringes, was the feature of the violet booth. At the San Jose booth 340 varieties of flowers were displayed. A pyramid of roses eight feet high, surmounted by a floral telescope, was a feature, while a baby carriage of roses and a small floral mountain attracted much attention. The throne of the May queen was twelve feet high, and was covered with 5,000 roses. Among the many elaborate floral pieces was one from Reynolds post, G. A. R., representing a camp scene. A miniature campfire was in front of the tents, which were covered with ivy.

FERNS.—Among the newer ferns I have found *Adiantum Le Grande*, A. Lathomii, A. cucullatum grandiceps, A. c. deflexum, A. bellum and A. Wiegandii. The best for cutting fronds from for cut-flower work. Many others of the newer varieties grow poorly, and do not produce enough fronds to be profitable. G. W.

Hot Water vs. Steam.

Upon reading this essay as found in the "Report of the second annual meeting of the S. A. F., at Philadelphia, Pa." it was surprising to me to find how little the essayist knew about "Steam," and how much he knew about "Hot Water."

I think it was a mistake to allow a manufacturer of either hot water or steam boilers to offer an essay, as each must be prejudiced in favor of his own. A person that has used both, and also flues, is one more capable of judging, for he has known by their use which is the best.

I have used both methods. An now using steam. Used hot water seven years; a year both together; three years steam. With one boiler I heat four houses and my dwelling, grow roses and carnations, and unlike Mr. May, can sleep and fear not, and take nine or ten hours of it, too.

In Sec. 2, the essayist compares the size of boilers. He forgets that the one steam boiler, which will heat fifty thousand square feet of glass, takes up less room, than the number of hot water boilers required for the same, and would not be a "more bulky mass" nor more difficult to get in place, nor cost as much. In regard to Sec. 3, how a grower who uses steam must have laughed to think of "his engineer," and the "high wages."—Why, my son, fifteen years old has taken full care of mine, in fact, it (the boiler) could run alone had it the means of supplying coal, and taking up ashes. In regard to Sec. 4, the steam boiler may cost a little more, but will last double the length of time, heat more surface, and require only one quarter the attention. In Sec. 5, his comparison of the cost of putting up is erroneous; the pipes do not require experienced labor, nor expensive tools; any one who can use tongs, and has common sense, can put them together, but it wants a clear head, and an understanding of steam to pipe the houses properly, and have it work successfully and economically. In Sec. 6, does he not make a mistake in saying that the 66° of heat are held in the boiler latent; they are not in the boiler, *but in the steam*, and are given off to the houses as the steam is condensed by radiation from the pipes, therefore steam has 66° of heat over the water.

He says, that as soon as fire is started in the boiler, circulation commences at once, we admit it, but steam does the same; he forgets to tell us how long it will take to heat the water in boiler and pipes to the required temperature. If one gallon of water when turned into steam, will make 1,700 gallons of steam, it will require less water to be heated, less fire to heat the water, and, as the steam is of a higher temperature, pipes of a smaller size will heat the same number of cubic feet. In Sec. 8, the assertions made are very broad, he has evidently not seen the latest thing out in an "automatic, self-feed steam boiler." In reply to the first ten lines, "the appliances, etc.," he had better come East and "catch up" to some of the innovations as applied to the workings of a steam boiler. He says, "from his own experience, and the statements

of reliable persons, that a steam apparatus cannot be left more than thirty minutes without attention." I assert that I have left, and do leave my apparatus for eight to ten hours "without attention" when the temperature is *twenty degrees below zero*, the putting on of coal and taking up of ashes was done only once in twenty-four hours. The additional heat required on such cold nights and days is not obtained by extra heavy firing, or with extra close attention which must certainly be done with hot water heating; but it is by simply turning on an extra run of pipe which is at once filled with steam.

Perhaps some one will now ask—well, what kind of boiler have you? In reply will say, it is an upright wrought-iron tubular boiler, with coal reservoir, making it self-feeding, with automatic damper regulators, which can be set to hold any required pressure of steam.

My object in writing the above was to try and dispel some of the "clouds of doubt" that have been thrown around steam heat for greenhouses, and to show that it is more effectual, more economical in coal and labor, requiring less attention with no more danger than hot water.

S. F. TERWILLIGER.

Saratoga Springs, N. Y.

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30 mixed varieties, 2 1/2 in. pots,	Per 100	\$8.00
Geraniums, collection 100 varieties,	Per 100	4.00
Fuchsias, collection 25 varieties,	Per 100	4.00
Verbenas, collection 50 varieties,	Per 100	2.50
Roses, Petal, Niphetos, Mermets, Bon Silence, etc.	Per 100	4.00

2 1/2 in. pots for TRADE USE.

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COLEUS,	5.00 " 100
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General collection,	1.00	25.00
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Geraniums, double and single,	1.00	20.00
..... Rose \$5 per 100, Silver,	1.00	25.00
..... Ivy, fine collection,	1.00	25.00
Fuchsias, fine collection,	1.00	25.00

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Florists 50 cents per hundred.

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Double Stocks.

Among the characters in a charming French story, "The Boy Wanderer," is Pere Acquin, a gardener, who raised many stocks for the Paris market.

The story relates that as fashion rejects single-flowering plants, it is necessary, in order to avoid wintering them over, to be able to distinguish the double from the single when quite small. This choice is called "selection" (*Pessinglage*), and is made by the inspection of certain characteristics which show themselves in the leaves and general appearance of the plant.

"Few gardeners know how to practice this operation of 'selection,' and it is even a secret which is preserved in a few families. When the growers want to make their selection of double plants, they address themselves to those of their fraternity who hold the secret, and the latter 'go to the city,' just in the same way as doctors or experts, to give their advice."

The florists on this side of the water do not take kindly to secrets in the trade, so I determined to become a "selector" forthwith. I could get no information from other florists, though doubtless there are some in the country who know all about it. I had some seed of the "Boston Florist's" variety, and planted them; in due time they came up and were potted in 2½-inch pots. As the plants grew I noticed some difference in their size and vigor of growth, and when the time came to re-pot them I selected the largest, in numbers three-quarters of the whole, and put them by themselves. As they continued to grow I noticed that the leaves began to differ a little, the margin of some being wavy, while the others were entire; all the wavy ones, with a few of the entire, were among the largest of the first selection.

I made a second selection, placing the wavy leaves together, and the entire leaves together. All of the wavy leaved came double; all but one of the entire leaved came single. These leaves with wavy margins appear only at the base of the plant, and in this case the difference between them and the entire leaves was so marked that I had no difficulty in selecting. But with a second lot of plants, from seed sown two weeks later, it was different; they were grown much cooler than the others, and the variation was so slight that I was governed quite as much by size of plant as difference in leaves. I saved three-quarters of the largest plants, and threw the rest away. Ninety-five per cent. of those saved came double. I used my own seed, saved from pot-grown plants. L. W.

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We have *Columb*, *Eschscholium*, from 5 to 7-in. pots, 1 L. to 2 L. high, \$5 to \$8 per doz. — 25 to 50 cents each.

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leas, Bennett's, Am. Beauty, 2-in. pots	15.00
Rose, tea, The Bride, 2 1/2-in. pots	15.00
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Stoke Holes.

On page 349 of your issue of 15th inst. your correspondents "G. & P." ask if some one will enlighten them upon the use of brick and cement to keep water out of furnace pits.

Having studied this problem for four years, I have come to the conclusion from extensive experience that *brick and cement will not keep water out*, and it is useless for any one to fool with it. There is a firm in New York city, viz: Moen's Asphaltic Cement Co., 103 Maiden Lane, who can do the work satisfactorily, but personally I prefer an iron tank sunk in the ground, rising an inch or two above high water mark. I have one of these pits which has been in use three years, and have to-day ordered a second one 22 ft. x 16 ft. x 5 ft. 6 in., made of No. 10 boiler iron, single riveted, with an angle iron about the top. To properly set this, first make the excavation large enough to take the tank with a dry laid stone wall 1 ft. 6 in. thick, the same under the bottom of the tank, all fitting as close to the iron as possible. Next lay a good bottom inside the tank two inches thick of the very best "Imperial cement" mixed with coarse gravel, a course, or still better two courses) of brick laid in Rosendale cement (this is good enough for the brickwork), then lay up the side walls of 4-inch brick, allowing one and one-half inch space between this wall and the iron sides, into which put the good cement, pounding it down with a stick. When the top of the tank is reached start an 8-inch brick and cement wall from the iron and inside brick and carry to the height thought necessary to exceed any possible rise of water. When all is completed and the boilers set, run sand into all cracks outside of the tank and between the stonework, and when it no longer runs in dry, turn the hose on and run it in with water. This will give an even bed all about the tank, thereby preventing any uneven bearing, and possible cracking of the cement by settlement. But do not put water in until all the weight possible is in the tank, as four inches of water will float the iron tank alone.

The life of such a pit has not yet been ascertained I believe, but if the tank should in time rust out, you have a solid cement wall, with a *glaze* outside and water will not permeate this. A cistern will hold water because this glaze is inside and next the water, but outside it is impossible to get this glaze except on the sides and then the bottom will leak. I have tried many ways, but have found this, (and others have found Moen's system,) the best, and, in fact, the only reliable way to *keep water out*. I might also say that my water pressure is 5 ft. 4 in.; with a less pressure, lighter stone work, and a trifle less cement can be used, but No. 10 boiler iron is the lightest that can be caulked, to render the joints water-tight.

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It is impossible to exaggerate the good qualities of the **PURITAN**. No description can give any idea of its wonderful beauty, both of flower and foliage. We went to see it, intending to buy fifty plants, and bought the entire stock, and if we could show Mr. Evans' houses of the **PURITAN** there wouldn't be a florist in the country but what would order plants.

READ WHAT IS SAID
About the **PURITAN** by Men who have seen it.

C. STRAUSS & CO., CAPITOL GREENHOUSES,
Washington, D. C., May 13th, 1887.

Gentlemen:

It would have done you good to see Mr. Pollock's eyes sparkle when we opened the cases of Puritans. Such fine, large, thrifty plants I have never seen before, and when the day closed they were all in four-inch pots, on our best bench, and looking as though they had "grown there," as Topsy says.

In the order of over 1000 plants, only one was broken, so you can see how carefully they must have been packed. They were received a week ago, and since then we have pinched buds from nearly every plant.

We are building a house especially for them, on the plan of Mr. Evans', to be heated with steam, and shall report our success to you during the coming season.

In December, and also in March last, we went north expressly to see the **Puritan** in Mr. Evans' houses at Rowlandsville, and your photograph gives but a faint idea of the grand sight. There were thousands of flowers, as large as the largest hybrid, both in bud and wide open, double to the centre, with foliage of the richest green, close up to the neck of the flowers, and stems which could be cut at least three feet long.

I wish you every success in your venture, and only regret, now that it is too late, that I did not take up with your offer of the 3000 plants.

Very sincerely yours,

B. A. ELLIOTT CO.,
Pittsburg, Pa.

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We have the largest and finest stock of **American Beauty** in the country, and are prepared to make special prices on it. Also, the best and healthiest stock of **Papa Gontier**, **The Bride**, **W. F. Bennett**, and all cut flower varieties of **Roses**. These, and all varieties of cut flower **Roses** we can now supply in all sizes, 2½, 3, 4 and 5-inch pots, and almost in any quantity.

Get a sample of our stock; there is none better. Trade list sent on application. Send list of your wants for estimate.

B. A. ELLIOTT CO.,
PITTSBURG, PA.

Dot Plants in Flower Beds.

Of the newer departure in summer bedding none has a more pleasing effect, or is likely to last longer in public favor, than the employment of what are generally known as dot plants in a carpet either of flower or foliage, and as the season for thinking about the summer arrangement of the flower garden is approaching, let me put on record a few combinations which may be new to some of your readers. The system finds favor from its diversity of outline, and from the way in which it relieves all flat uniform surfaces, whether carpet beds, pure and simple, or blocks and masses of color. Tuberos begonias are very useful for this work, and have a more pleasing effect when thus employed than in masses. The large-flowering varieties are admirably adapted for dot plants, and where named sorts are not at hand, good seedlings of decided colors in scarlet, pink, and light shades should be selected, care being taken that they are free-flowering and of sturdy, robust habit. The best carpet for way beds is the mesembryanthemum; a few dotted here and there in this ground-work, and far enough apart to show up the variegated foliage, with an occasional plant of *Acacia lophantha*, makes a very pretty and effective bed, whilst for the lighter varieties a green carpet, as camomile, mentha, etc., or better still, the blue viola may be used. A plant I can thoroughly recommend for dotting about amongst masses of blue viola is *Sisyrinchium californicum*; its flag-like foliage and long spikes of creamy yellow flowers stand well up, and form an effective contrast to the blue carpet; the same viola may also be used to advantage as a ground-work for large beds of *Lilium candidum*. For large beds of scarlet and pink geraniums the best dot plants are white marguerites; struck in spring and turned out of 3 inch pots, they make large bushes quickly, and the dense sheets of white rising out of the bright colors of the geraniums have a very pretty effect. For smaller beds, *eucllytus* and the sweet-scented tobacco may be used instead of marguerites. Nice little plants of fuchsia, with compact bushy heads, are also very useful, and can be worked in according to color in beds of viola, dwarf ageratum, iresine, heliotrope, and the like. A pleasing combination for a large bed is a ground-work of dark purple *petunia* interspersed with occasional plants of the large variegated abutilon, and yet another is a carpet of dark heliotrope dotted over with *Centaurea candidissima*. For green, feathery foliage, to be used where bright variegation predominates, nothing is better than *Acatia lophantha*. The above list might, of course, be largely extended, but the plants enumerated are within the reach of all who have a greenhouse, and wish to furnish some pleasing combinations for the summer decoration of the flower garden.—E. B., in *London Garden*.

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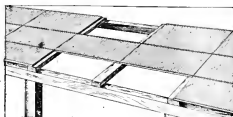
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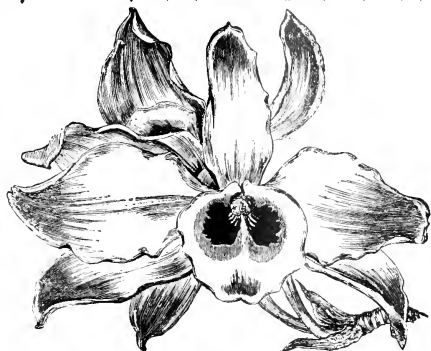
I am now prepared to furnish plants by the 100 or 1000 of over 500 of the best varieties. Send for list.

ROSES.

All the leading forcing varieties now for delivery in May and June. Get your stock from our fine, healthy plants.

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PANSIES ONLY! The grandest collection ever offered, including ALL the latest NOVELTIES. Our Seed is warranted to be FRESH, PURE and strictly FIRST-CLASS. Send for new Circular and Special Price List to the Trade.

ALBERT BENZ, Douglaston, N. Y.**ORCHIDS, PALMS AND RARE PLANTS****Cut Orchid Blooms for Florists at Wholesale.**

\$10.00, \$15 00, \$20.00 and \$25.00 lots can safely be shipped
any distance in good order.

Siebrecht & Wadley,

409
Fifth Ave., New York.

Mention American Florist.

Regular Shipments made every month from Mexico, Guatemala,**Brazil, Columbia and Venezuela to U. S. A. and Europe.****P. O. BOX, 484. FINK & CO. CITY OF MEXICO.****Largest Stock of Orchids in America.****PRICES FREE OF ANY CHARGES IN NEW YORK.****Seedsman, Florists, Nurserymen,****IMPORTING BULBS**

See our advertisement on page 357.

R. VAN DER SCHOOT & SON.

Mention American Florist.

EVERY FLORIST

Should have our

New Trade Directory.**Grape Dust****A TRIAL****By a large Grower.****THE RESULT:**

Mr. B. Hammond, near St. Albans, Vt., wrote me the "GRAPE DUST" and used it on vines attacked by Mildew on the leaf, and it stopped the spread of the disease immediately, and did not burn the leaves like sulphur. I had also a great deal of White Mold on the fruit and when used in time it completely eradicated it. It goes further than Sulphur and is not unpleasant to use.

I used the "GRAPE DUST" on the following varieties: "Rebecca," "Jefferson," "Montgomery," "Norton's Virginia," "Brighton." All these had the Leaf Mildew. "Concord" and "Rogers' Hybrid" for the White Mold on the fruit; on "Lady Washington's" Mildew was on the leaf, and Mold also on the clusters. Respectfully yours,

FLOYD QUICK, Johnsville, Dutchess Co., N. Y.

For pamphlets address, SILENT SHOT, Fishkill-on-Hudson, N.Y.

Spring Sales of Bedding Plants Etc.,**AT AUCTION,****Every Wednesday & Saturday at 10 a. m.****UNTIL JUNE 11, 1887.**

Any one wishing to consign plants to our sales can send by freight and notify us. We will take proper care of them. **RATES OF COMMISSION** 12½ per cent. for selling and three per cent. for advertising. References, any of the Florists about Boston.

N. F. MCCARTHY & CO., AUCTIONEERS.

Auction Room, Corner Pearl & Purchase Sts.

63 Bromfield St., BOSTON, MASS.

Cincinnati.

Hothouse grapes clustered in floral beds made up the decorations of a recent dinner table.

Cut-flower business is dropping off a bit, and the bulk of business is now in the plant line.

"Outdoor Jacques" are coming in now in large numbers, and the flower markets are full of them.

At a church wedding on Walnut Hills the bridal party passed to the altar beneath an arch of snowballs.

Florists are already preparing for the "sweet girl graduates," and several commencement novelties are being planned.

For a recent wedding Sunderbruch made a lovely bell of laurel, dotted with white roses—the first of the kind ever seen here.

B. P. Critchell has had on exhibition a half-dozen blooms of the new white rose, the Puritan. Florists attracted the attention of both florists and fanciers. Critchell has purchased a couple of hundred plants.

Mr. Frank Huntsman has returned from the South with his health entirely restored. He brought home a stock of laurel in bloom from the Cumberland mountains, and most of it was at once used for the decoration of a luncheon table.

A great flat of flowers, with the inscription "XIII" in the center, was the decoration used at a dinner of the "Thirteen club." **REN MILFORD, JR.**

M. M. BAYERSDORFER & CO.
56 N. 4th Street, Philadelphia, Pa.,

Manufacturers and Importers of

Baskets & Florists' Supplies

NEW CATALOGUE READY,
and sent free on application.

Delegates to the next convention will travel via the **Pullman Car Line**

MONON ROUTE
TO AND FROM
Louisville, Indianapolis, Cincinnati and the winter resorts of Florida and the South. For full information address
E. O. McCormick, Gen. Passenger Agt., Chicago

CYPRESS + BARS.

THE
Best Sash Bar on Earth,

And the best wood known for Greenhouse construction—Is as lasting and

Better than Cedar.

Plain Bars 1 1/2 x 1 1/4, 2 cts. per foot lineal.
LOCKLAND LUMBER CO.,

LOCKLAND, O
Mention American Florist.

Ed. JANSEN,
124 West Nineteenth Street, NEW YORK.

Manufacturer, Importer and Dealer in

STRAW BASKETS WICKER
WILLOW GILT
FOR SCHOOL COMMENCEMENTS AND SPRING
TRADE IN GENERAL.



FOR THE TRADE.
FLORAL WIRE DESIGNS.

JAS. GRIFFITH,

THE :: PIONEER :: MANUFACTURER :: IN :: THE :: WEST,
308 Main Street. CINCINNATI, OHIO.

SEND FOR WHOLESALE PRICE LIST.



Greenhouse Pipe and Fittings



Large quantities of our Pipe are in use in Greenhouses throughout the West, to any of which we refer as to its excellent quality.

Pipe can be easily put together by any one, very little instruction being needed.

GET THE BEST!

Hot-Water Heating, in its Economy and Superiority, will repay in a few seasons its cost.
Mention American Florist.

L. Wolff Mfg. Co., 95 to m W. Lake St. CHICAGO

ESTABLISHED 1828.

Greenhouse Pipe,

FITTINGS

— AND —

VALVES.



Fountains,

VASES,

SETTEES.

ETC., ETC.

STABLE FITTINGS.

THE J. L. MOTT IRON WORKS.

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HEATING APPARATUS FOR GREENHOUSES.

SEND FOR ILLUSTRATED CATALOGUE.

J. D. CARMODY, Proprietor, Evansville, Ind.

EVERY FLORIST,
NURSERYMAN
AND SEEDSMAN
should have our NEW

TRADE DIRECTORY

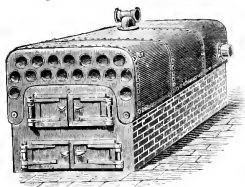
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AMERICAN FLORIST COMPANY
CHICAGO

ESTABLISHED 1854.

Devine's Boiler Works

THE FLAT TOP TYPE

Wrought Iron Hot Water Boilers.



Capacity from 350 to 10,000 feet of four-inch pipe.
Send for New List.

PETER DEVINE,

387 S. CANAL ST.,

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GLASS & PAINTS
FOR
GREENHOUSE MEN
-W. C. PEALE & BRO.
332 & 334 CENTRAL AVE., CINCINNATI, O.

Write for Prices, or consult Cincinnati Mail Report in this Paper

ESTABLISHED, 1866.

Floral Wire Designs,

Manufactured by

N. STEFFENS.

335 East 21st Street, NEW YORK.

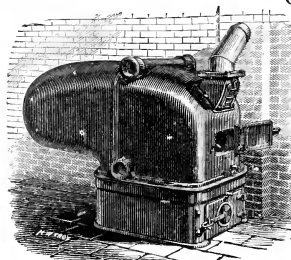


C. A. KUEHN,
MANUFACTURER OF
THE PATENT CLAMP
FOR FLORISTS'
ORNAMENTAL
WIRE DESIGNS.
1432 MORGAN ST.
ST. LOUIS, MO.
SEND FOR
WHOLESALE
PRICE LIST.

HALES' MOLE TRAP

For destroying ground moles in lawns, parks, gardens and cemeteries. The only PERFECT mole trap in existence. Guaranteed to catch moles where all other traps fail. Sold by newsmen, Agricultural Implement and Hardware dealers, or sent by express on receipt of \$2.00 by H. W. HALES, RIDGEWOOD, N. J.

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HITCHINGS & CO.

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Five Patterns of Boilers,
Eighteen Sizes,
Corrugated Fire Box Boilers
Saddle Boilers,
Conical Boilers,
Base Burning Water Heaters
Perfect Sash Raising Apparatus.

H. M. HOOKER
GREEN HOUSE
Glass.
312 W. W. RANDOLPH ST.
Chicago.

All Glaziers Supplies. Write for Latest Prices



Florist's Letters

Patent applied for.
These letters are made of the best immortelles, wired on wood or metal frames with holes to insert toothpicks.

Prices on Wood Frames:

2in. Purple... Per 100 \$3.00

Less than 100, 3c.

2 1/2 in. Purple. Per 100 \$4.00

Send for sample. Postage 1c. per 100. Script lettering on Metal Frames any Width. 8c. per letter.

Designs, Monograms, etc.

W. C. KRICK.

1107 Broadway, Brooklyn, N. Y.

J. C. VACCHAN, Chicago,

Agt. west of Pennsylvania

Mention American Florist.

FLORISTS, READ!

This ad. is our only traveling salesman. Our samples and prices make sales. We sell thumbs 2 1/2, 2 1/2, 2 1/2 and rose pots at prices too low to print, giving special prices to include safe delivery in company with local potters everywhere. Cash orders for one crate \$6.00, filled at bottom prices.

SYRACUSE POTTERY

has 200,000 well-burned, strong, porous pots packed ready to ship instantly. Nine fast freight lines; no delay. New freight rates to Boston points by New York points by: Pittsburgh 17c; Cleveland 21c; Columbus 22c; Cincinnati 23c; Michigan 24c; Indianapolis 25c; Chicago 26c; St. Louis 27c. Write for samples and prices.

J. NEAL PERKINS, Manager, Syracuse, N. Y.

SPHAGNUM MOSS.

Especially for Florist use. \$2 per bale, \$1.25 per bbl. Sheet of Log moss, \$2 per bbl. Pitcher plants, a Wisconsin novelty, \$2 per doz.
Lycopodium in its season at lowest prices per bbl. or ton.

Z. K. JEWETT, Sparta, Wis.



Grind your own Bone.

Meal, Oyster shells, GRAHAM FLOUR, and Corn in the \$5.00 HAND MILL or Wilson's patent 100 per cent more made in one POTTERY.

Also POWER MILLS and FARM FEED MILLS. Centrifugal and Testimonials sent on application. WILSON BROS., Easton, Pa. Mention the American Florist.

THE TRIUMPH & PEERLESS STEAM HEATER HOT WATER BOILERS
ADDRESS RICE & WHITACRE, 116 & 118 Chicago, Ill.

10,000 ELECTROS.



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THE WHILLDIN POTTERY CO.,

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ORNAMENTAL : GOODS

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Including RESERVOIR, (Self Watering) VASES, TERRA COTTA RUSTIC AND IRON VASES, From \$1.00 Upwards.

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All mail orders and correspondence must be addressed to Milwaukee office.



THE AMERICAN FLORIST



America is "the Prow of the Vessel; there may be more comfort Amidships, but we are the first to touch Unknown Seas."

Vol. II.

CHICAGO AND NEW YORK, JUNE 15, 1887.

No. 45.

THE AMERICAN FLORIST

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EASTERN OFFICE,

Room 8r, Vanderbilt Building, New York.

All communications should be addressed to the
general office at Chicago.

SOCIETY OF AMERICAN FLORISTS.—Robert
Craig, Philadelphia, Pres.; J. C. Vaughan, V.
Pres.; M. A. Hunt, Treas.; Edwin Lonsdale,
Chestnut Hill, Philadelphia, Secy. The third
annual meeting at Chicago, August 16, 17 and
18, 1887.

DECORATION DAY.—Reports from all
sections show that the use of flowers on
this day, and consequently the sales of
the florist were much larger than last
year. The increase in the call for de-
signs, cut flowers and plants being in
most cases about equal in proportion.

Hail Insurance.

The many reports of loss of glass by
hail, not only in one section, but from
New York to Minnesota, again brings
forcibly before us the important question
of insuring against hail, at least suf-
ficiently to avoid total ruin, as was the
case with one or two unfortunate who
were nearly if not quite wiped out by
destructive hail-storms. Nearly every
business man carries insurance against
fire, and considers it a legitimate expense
which is classed with interest and taxes.
Any man carrying a stock of goods
which constituted his chief wealth would
lose credit rapidly if it became known
that his stock was unprotected by insur-
ance, as no matter how honest he might
be, in case of loss by fire, he would be
unable to meet his engagements. Are
you protected? Are you insured in the
hail insurance company which the Society
of American Florists has provided for
you? It is in working order, and is ready
to issue policies. Full information will
be furnished by Secretary John G. Esler,
Saddle River, N. J.

SUBSCRIPTIONS FOR THE AMERICAN
FLORIST may be left with any of the
following:

Baltimore,	New Orleans,
R. J. Haliday,	H. A. Despommier,
Boston, W. J. Stewart,	Philadelphia,
Buffalo, Daniel B. Long,	Edwin Lonsdale,
Cincinnati,	New York, W. S. Allen,
Cleveland, O.,	Aug. Roiker & Sons
Harry Sanderbrnch,	C. H. Joosten,
Mrs. E. G. Campbell,	Pittsburgh,
Detroit,	J. R. & A. Murdoch,
J. Brettmeyer & Sons	& Seed Co.
Hamilton, Ont.,	St. Louis, Mich. Plant
Webster Bros.	San Francisco,
Harrisburg, Pa.,	Thos. A. Cox & Co.
J. Horace McFarland,	Toronto, Ont.,
Louisville,	J. A. Simmers,
George Thompson &	Washington, D. C.,
Sons,	L. Schmidt & Sons,

What Do Your Plants Cost?

I seriously doubt whether any florist
can answer the above question as to the
plants he grows, and whether there are
more than ten in America who could
make more than a very rough estimate.
If the florist did know what his plants
cost him to produce, he would know
when he was cutting prices below cost,
and would probably stop when he reached
the limit; but as it is, he is sailing in a
fog.

When a manufacturer sets a price on
an article turned out of his factory, he
computes the cost of the article in raw
material, labor, wear and tear on ma-
chinery, interest and insurance; to this
he adds a suitable percentage for profit
when offering the product for sale. He
cannot, of course, secure a higher price
for his goods than others do for those of
same quality, hence to make a very
marked success, the cost of manufacture
must be reduced to less than that of his
competitors, thus enabling him to secure
a market by quoting a trifle lower prices,
and still make the same margin of profit,
and in any case he must at least manu-
facture his products at as low a figure as
his competitors. But when he finds that
his methods or machinery cannot pro-
duce the finished article for the same
amount at which he must sell, he shuts
down, as to continue on that basis would
be certain ruin.

The florist is a manufacturer of plants
and flowers, and he can and should con-
duct his business upon the same prin-
ciples as his brother manufacturer of other
goods. If he does not know what his
goods cost him, how is he to know what
price he must secure in order to make a
profit? And how is he to know when
prices have dropped below the cost of
production? He can know, simply by
keeping accurate record of each item
of expense as well as receipts from each
separate branch of his business, in the
same manner as other manufacturers.

In a recent article on the Bennett by
Mr. Ernest Smuts, the cold figures of re-
ceipts from certain rose houses threw
more light on the subject under dis-
cussion than all the columns of opinions
advanced by other very able men. They
thought they were right, but he knew
where he stood; opinions and recol-
lections are poor stock compared to an
accurate record of each item.

Many in the trade seem to have a
natural antipathy to any kind of book-
keeping. They say they "can't afford a
book-keeper," and can't spare the time
themselves. Is it not worth a little
trouble or expense to know whether you
are making a profit or losing money?
Is it not worth while to know whether
you are solvent or are practically bank-
rupt?

The first step toward ascertaining where

you stand is to take an inventory of your
stock; with this as a starter, estimating
values as closely as possible to what the
stock would bring in the open market
under ordinary circumstances, you may
very easily carry on the record so that
you can at any time find out just where
you stand. You can do this by making
a simple statement something like this:

Present value of greenhouse plant and tools	\$2,000.00
Present value of plants and stock on hand	1,000.00
Receipts from sales since last statement	1,500.00
Accounts due me	500.00
Cash on hand and in bank	500.00
	\$5,500.00
Value of greenhouse plant and tools at last accounting	\$2,000.00
Value of plants and stock on hand at last accounting	500.00
Expenses since last account- ing	500.00
Bills payable	200.00
Cash on hand and in bank at last accounting	250.00
	\$3,450.00
Net gain	\$2,050.00

This statement must, of course, repre-
sent a careful estimate on the value of
each item, to be reliable. Plants are
worth what they can be sold for—no
more. If a plant is unsalable, or does
not produce salable flowers, it is worth-
less to a florist, for it is a matter of busi-
ness that we are dealing with now. If
you are keeping plants which are not
profitable, simply for your own gratifica-
tion, charge their care to personal ex-
pense, unless they are of value as an
advertisement of your business when it is
a legitimate expense, and should be
charged to advertising. It may at times
be difficult to draw the line, but take
your inventory as though you were valuing
your neighbor's stock instead of your
own, and you won't be far out of the
way.

Another important point in being able
at any time to show just where you
stand, is in case you wish to sell your
place, you can readily show a possible
purchaser just what your place is worth,
and have the figures to show for it. I
might go on and enumerate other ad-
vantages indefinitely, but it would take
too much paper to hold them all.

To conclude, keep some sort of an
accurate record of your business, if it
don't exceed \$500 a year. It will pay
every time.

G.

Washington.

Nearly all the florists report the Decora-
tion day trade as larger than last year.
Both cut flowers and plants sold well.
Logan's tomb was almost buried in flowers
and handsome designs of all shapes
and sizes. The graceful marble facades
of the tomb were almost hidden from
view by flags and floral designs. Around
the top and sides of the tomb were two

large American flags, and in the center of each was placed a magnificent wreath of white roses. Beneath an arch over the tomb rested a square bed of palms, on which lay crossed American flags. Other designs were a club badge of the Young Republicans of Philadelphia pendant from the badge being crossed swords, a handsome shield of roses, an anchor and bleeding heart, a neat design in the shape of a target, and a shield and cross. Inside of the tomb the decorations were equally profuse. The entire rear was covered by a magnificent star, made by Freeman. It was six feet in height, and was made of Jacque roses; in the center was a large portrait of the dead general encircled by a wreath of daisies. The casket was loaded with flowers, a wreath of evergreens sent from New Mexico resting at the center. At the head was an elaborate pillow, while an immense basket of cut flowers was placed at the foot. At Arlington all of the 11,000 graves were strewn with flowers. These decorations were all executed under the auspices of the U. S. A. R.

At the commencement exercises of the Georgetown law school, held June 2, the principal decoration was a large design bearing the inscription in Jacque roses and red carnations: "Class of 1887."

At a recent wedding the bride and groom stood under a canopy of roses nine feet high and four wide. It was trimmed with asparagus, and was very handsome. It was the work of Mr. Wm. Coleman.

At a recent funeral the whole front of the pulpit of the church was one large frame covered with flowers. In the center was a wreath of red carnations, four feet in diameter, inclosing a cross and crown; the crown of yellow and the cross of red flowers. On one side of this central piece was an immense anchor, and on the other an open book to correspond. The field of flowers on which these were placed was about eight feet in height. This was arranged by J. M. Miller & Co.

An odd design in the shape of a "composing stick" was lately made by Freeman for the funeral of a printer. It was worked out with white and colored carnations.

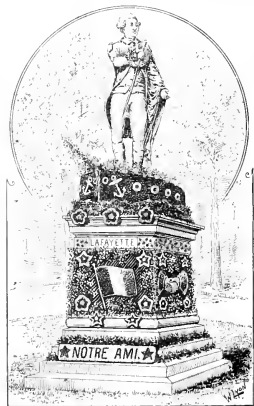
During the national drill the Lomax Rifles, of Alabama, were presented with a floral shield five feet in height. It had a 6-inch border of red carnations, the center field being of white carnations, in the center of which were crossed American flags worked out in red, white and blue blossoms. Below the flags were crossed swords, also of red and white, while above was lettered the name "Lomax," and crossed rifles, and "1887" lettered in red. It was pronounced by all who saw it to be the handsomest set piece ever made in this city. It was designed by Freeman. L. A. S.

Notes and Comments.

This is the most trying season of the year to the city florists; there are few entertainments, and the wealthy people are leaving town. Fortunately for the trade, the custom of sending flowers to departing friends on the ocean steamers is increasing, and work of this kind comes in when there is little doing in other directions. Unfortunately, it is not every florist who can reap the benefit of this custom; it does not relieve the dull season in inland cities.

Flowers are certainly cruelly cheap that is, from a professional standpoint. The street hawkers are selling fine

Jacquemints two for five cents, and this before outdoor roses are fairly in. You may buy great bunches of weigelia, syringa, and big peonies for the merest trifle. These outdoor shrubs have been used a great deal in decoration; in large masses they are very effective; they make a finer show than a better quality of flowers. One of our Fifth avenue florists has made use of the kalmia flowers in decoration; they are very beautiful in themselves, and doubly attractive with their shiny foliage. Magnolia glauca has been sent in too, but it needs care in handling. The creamy flowers bruise as easily as a camellia. The delightful fragrance as well as the



DESIGNED BY J. M. MILLER & CO.

beauty of this flower renders it very attractive, and it may be had in quantity for the gathering, all through the swamps of south Jersey.

Some genius has recently patented a bouquet-making machine, illustrated in a scientific contemporary. It is, however, a very simple arrangement merely for the purpose of winding the twine around the stems of the flowers, by means of revolving spindles, while the maker puts them in place. It would be more properly a bouquet-making machine if we could throw the flowers into a hopper at one end, and have them come out, well arranged and tied up in tissue paper, at the other.

Wild field flowers—daisies and buttercups—are used in immense quantities, to the great joy of the farmers, for, looking at them from a practical standpoint, they are a most pestiferous nuisance in all old pastures. And nothing but plucking every flower, as well as grubbing up the roots, will exterminate them; they have more lives than a cat.

It is more than likely that there will be more orchid flowers in the market next year than this, and most probably prices will decline in consequence. Every grower is increasing his stock of these plants, and the auction sales have been very large. Of course, growers will run to a few special varieties rather than

a general collection. We shall have to consider in orchids as well as roses just what varieties will bring in the best returns. Slow bloomers or those with perishable flowers will never be of much use. The cypripediums are very satisfactory, and of course lilies, cattleyas and odontoglossums. Lycastes, too, are lasting and handsome. It will never do for a grower to give fancy prices for plants, if he hopes to make anything by the flowers. Unfortunately, there are not so many satisfactory white orchids as colored; a good many of them are too heavy for general use. Cocioglossums are charming and prolific, but the crepe-like texture of the flowers gives an outside the impression that they are beginning to droop. The odontoglossums have the advantage of easy culture, free flowering and lasting blooms. They may be called the amateur's orchid, for any one can grow them, if he only knows how. Mr. Bush, of Tremont, has a superb variety of *Odontoglossum vexillarium* now in bloom; the flowers are very large and exquisitely delicate in hue.

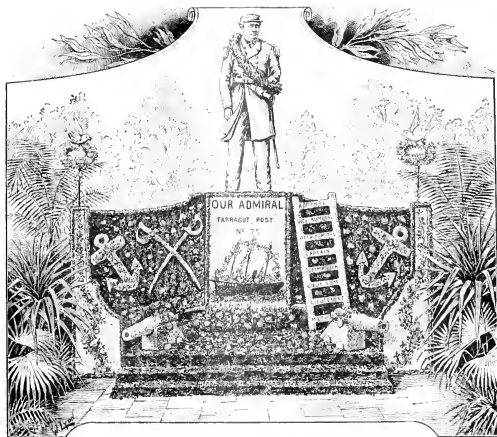
One of our horticultural editors protests against the substitution plan indulged in by some florists. The offender in this case, however, did not merely send another variety; apparently his asparagus bed encroached upon his clematis border, for some roots of that respectable vegetable were mixed with the latter. It was an exasperating mistake, but the offender promises that he won't do so any more, and peace is declared.

Gloxinas are now used in decorating, with very good results. In a bed of ferns they are very effective for banking a mantel or forming a table plateau. The pink shades are very effective, especially by artificial light, and when the entire plant is used, the handsome foliage shows to great advantage.

The climbing fern (*Lygodium scandens*) seems to have attained a fair amount of popularity for draping, though of course it is not grown as extensively as snailax or asparagus. The native variety, *L. palmatum*, is equally pretty, and very plentiful in some peaty bogs in the vicinity of New York. Fortunately, it is out of the latitude of the average summer boarder, or it would soon be as scarce as it now is plentiful. It is rather saddening to the enthusiastic botanist to see some of our most charming native plants literally devoured, root and branch, by unscientific collectors. So long as they confine their energies to daisies and buttercups, we have nothing to fear; they are welcome to the hosts of composite that brighten the autumn fields, but it is a pity we cannot protect our native orchids, which grow scarcer every year in the vicinity of large towns.

Decoration day seems to have turned out better than was expected, as far as the florists were concerned. There was little in the way of novelty; a good many plants were used. Really, there has been nothing very new in the trade for some months past; the florists are turning their thoughts towards novelties for the fall trade. The bedding season is pretty well over; it has been very good while it lasted. New Yorkers seem growing in appreciation of flowers and plants. Hotels and private residences make a much greater display now than formerly. Most up-town houses make a fine display of window boxes and balcony gardens, like the residences in the West End of London.

The Old London Streets, which held a pretty flower show in April, advertises among its special attractions two century



THE FARRAGUT MONUMENT, NEW YORK, DECORATED IN DAY.

plants in bloom. A good many people are under the impression that this plant blooms but once in the century, so these agaves receive a good deal of attention. Certainly, their flowering is somewhat of a rarity, if not as infrequent as popular report avers.

EMILY LOUISE TAPLIN.

Decoration Day Designs.

At Philadelphia many elaborate pieces arranged for Decoration Day were displayed in the windows of various mercantile houses before being used for the purpose for which they were arranged. The following description is from the *Philadelphia Ledger* of May 30:

In the large west window of Jacob Keel's store, below Tenth street, a design was set which covered a ground space of probably 50 x 10 feet. The floor was covered with moss and fern leaves, and banks of flowering plants and tall palms served as a background against the stars and stripes, which extended to the ceiling. In the foreground on the right was a large tent of white immortelles, bordered with red, and on the side a green clover leaf. The flies were represented as tied back, revealing a Grand Army uniform, a camp stool and sword and scabbard inside. Over the opening was a large red and yellow star of immortelles. The design was prepared for Post No. 2, on the right of the tent was another design for Meade Post No. 1. It consisted of a floral frame about 15 x 7 feet, made up of beautiful dried leaves and flowers and containing a border of laurels. The background was composed of trailing pine, the bottle green color of which gave prominence to a central design in red, white and yellow, representing the letters "G. A. R." on a large shield of red, white and blue. Beneath the shield, which was about three feet long, were two large palm leaves, bowed. A white sword, tied by wheat to a yellow scythe of immortelles, rested beneath the palms. Floral symbols were also worked in each corner. The designs were given an additional military aspect by two stacks of arms and drums suspended.

One of Browning, King & Co.'s large windows was also devoted to Memorial Day decorations. The ground was sodden and around the grass ran a border composed of a small plant of a lighter shade of green. Banks of plants and ferns were arranged behind and rested against a general background of flags. On the right hand side of the window an oval design, measuring about four feet high and three feet across, was raised on an easel. Around the heavy border of

yellow and blue immortelles were the words worked in purple, "In memory of our fallen comrades." The background was of trailing pine, and against it was worked a large red key-stone, with the letters "W. G." in the center. The whole design was prepared for Post No. 2, to be placed on the Washington Gray's monument at Broad street and Girard avenue.

The handsomest feature about the decorations, however, was an average sized grave, with head and foot stones made of immortelles, and intended to represent the last resting place of Gen. Geo. G. Meade. The head and foot stones were made of white immortelles, and on the headstone was the inscription in blue, "General, George G. Meade, Born December 26th, 1815, Died November 24th, 1872." Two white doves stood over the stone, holding a broken chain of blue immortelles in their bills. On the right of the grave stood the image of a soldier resting his sword upon the grave, and on the left was a sailor. The design was intended for the Meade Post.

Marks Brothers also had in one of their windows at Eighth and Arch streets a design for the Meade Post. The background and half canopy was made of flags and hunting. A design in colored immortelles, representing the letters "A. K." in a big "G," rested against a pedestal three feet high on which was a floral monument extending several feet higher. The monument was white, and stood on colored foundation blocks.

Cleveland.

J. C. Gooding, former manager of W. J. Gordon's greenhouses, has started into business for himself. He received from Pittsburgh lately eleven tons of glass to be used on the new establishment. The new location is in East Cleveland, near Lake View park. Roses only are to be grown for the wholesale trade.

Will H. nna and Andrew Eadie are both on th-ick list.

J. M. Gasser has just bought a new location on Euclid avenue, where he intends to build soon. Twenty feet at \$1,000 per foot, with the building extra, looks up to a nice little sum. Excavation for the new building is now going forward.

Decoration day trade was the best that was ever known here. Cleveland was stripped of flowers. The market garden-

ers left early, declaring they had made enough for one day, and others lamenting they had not more to sell, as the demand was extraordinary. The day was more generally observed than ever before, and the florists were correspondingly happy. Many unique and handsome designs were arranged by local florists for different military companies and for private citizens.

The flower show continues to be the subject of conversation among the trade. It will be held on June 14-15-16. A premium list covering \$500 has been offered for flowers, plants and fruits. The most competition will probably be on the best "floral design," "table design," "basket" and "carpet bed" design. The private gardeners will have, no doubt, the "plant" premiums to themselves, as no professional will be able to compete with them. The proceeds are for the benefit of the city hospital.

At a late meeting of the Florists' club it was decided to hold a chrysanthemum show in the fall, under the auspices of the association. The premium list has not yet been made out, but will be acted upon soon.

Chicago.

Miss Clara Stahley, the Washington street florist, was married June 7.

R. Merritt has opened a flower and seed store at corner of Madison and La Salle streets.

The sign on a new floral store at 320 west Madison street bears the name of Ed. Becker & Co.

A huge bunch of La France roses, containing ten dozen buds and tied with pink satin ribbon, was recently made for a funeral by Reising.

Commencement business has opened well, and all the florists are busy; in fact, business has been very satisfactory ever since Decoration day.

Perles, Niphetos and Souvs, retail for \$1; Bons, 60 cents; Jacques, \$1.50 to \$2; hybrids, \$2.50; La France, \$1.50; Merrets, \$1.25 to \$1.50, and carnations 25 cents a dozen. Smilax sells for 50 cents a string.

At the last meeting of the Florist club it was decided to offer premiums to the amount of \$1,000 at the flower show to be given next November, this sum to be divided as follows: Chrysanthemums, \$250; other plants, \$300, and cut flowers and designs, \$450.

Recent rains have brought out the peonies in force, and of much better quality. They are retailing at from \$1 to \$2 a dozen. The yellow day lily is in, and retails at \$1 a dozen. Roses are at present rather poor in quality. The irises are past, and the only lily of the valley to be had is out of door stock shipped in from the north, some being sent from as far north as Lake Superior.

Spring plant trade has been very satisfactory. Prices were firmer June 1 than earlier in the season, owing to the fact that the florists who were in a hurry to sell had disposed of their stock, and the others had a chance to sell at a little better prices. Verbenas are very scarce, there being but little clean stock in the market except a few seedlings. There is also the usual shortage of the double sweet alyssum. This little plant is always in good demand for mixed planting, but is frequently propagated too early, so that by selling time it has exhausted the soil in the pot, and not being potted up, is past its best flowering at selling time.



Odontoglossum (Miltonia)
Vexillarium and its Allies.

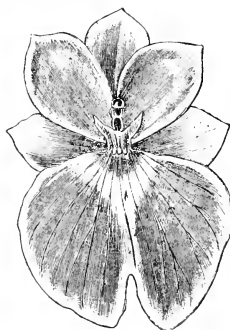
This is a type of *odontoglossum* differing so materially from its congeners in general appearance and in character of flower that it is now very properly referred to the Miltonias, but popularly they will always be known as *odontoglossums*. This type comprises four species, viz., *vexillarium*, *Roetzlii*, *Phalaenopsis*, and *Warewiczii* or *Miltonia* *Eudresii*. With the exception of the latter, which is found in Costa Rica, they are natives of the Andes, in Colombia, and are found growing on trees, stumps or rocks in moist and somewhat shady spots. The distinguishing characters of the species are compressed oblong bulbs, thin and somewhat concave leaves, and with the bulbs of a very pale green; flowers large and flat, borne on slender arching scapes which spring from the base of the bulb, sepals and petals oblong acute, somewhat small. The *labelium* is two-lobed, and is fully two-thirds of the whole flower. *Vexillarium*, a magnificent species, is the largest, and is the most generally grown of the four. It was discovered more than twenty years since by Bowman, but no living plants reached Europe until Chesterton succeeded in getting home a batch in 1873. (One of this same batch is in flower with us now.) Large quantities are now imported, and it can be obtained moderately cheap. Its flowers are of a rosy color, and often measure $4\frac{1}{2}$ inches across. Five to eight flowers are produced on a spike, and strong bulbs will give three and often four spikes. There are many named varieties, varying in color from pure white, as in *alba*, to the deep tints of rubellum. *Miltonium* is a finely-colored variety, with purple lines running through the lip, and covered with spots of same color. The flowering season is May and June, but there is one variety that flowers in the fall. The flowers last four weeks in perfection.

It is among the easiest orchids to grow when once its requirements are understood. The same treatment recommended in these pages for *O. crispum* will suit this species admirably, except that it must be accorded the warmest end of the house where the thermometer is seldom below 60°. The yellow thrips is the greatest enemy to this class of plants, and will in a short time not only disfigure the foliage for life, but will cripple the flower scapes and buds. The presence of this pest in the house is a sure sign of neglect in watering or the atmosphere too dry. Steaming the house with tobacco water or dipping the leaves in the same will soon eradicate them.

O. Roetzlii was named in honor of its discoverer, and was introduced about the same time as the preceding. It is much smaller in growth than *vexillarium*, and the leaves are very much narrower. It flowers twice a year, two to four flowers being produced on a spike, and as many spikes to a bulb. The flowers are pure white, with a large purple blotch at base of petals and a blotch

of yellow at base of lip. The variety *alba* lacks the purple blotches. Being found at lower level than *vexillarium*, it requires more heat; indeed, we had no success with it until we placed it in our warmest house (our *phalaenopsis* house), where they are now growing admirably. It requires abundance of water overhead and at root.

O. Phalaenopsis, the smallest of the section, has been in cultivation over thirty years, but is still comparatively rare. The bulbs are smaller and rounder than *Roetzlii*, with slender grass like leaves. It produces three to four flowers on a spike, somewhat smaller than *Roetzlii*, white, with lip heavily marbled with purple. It grows in thick clusters on rocks, in very moist, shady spots, and in cultivation succeeds admirably with *vexillarium*.



ODONTOGLOSSUM VEXILLARIUM

O. Warewiczii is very rare; in habit resembling *vexillarium*, producing six to eight flowers on a spike. The flowers are about the size of *O. phalaenopsis*, white, with blotch of rose at base of sepal and petal, and two blotches of same at base of lip, with a yellow crest; succeeds best with *Roetzlii*. F. G.

Vanda Cœrulea.

This is one of the loveliest of all the Orchideæ, its flowers possessing a color quite unique in this extensive family and until the advent of *Sanderiana* was the only member of a somewhat extensive genus that repaid the trouble of growing. It is more than forty years since it was first discovered by Griffiths on the Khasya hills of India, but in common with the majority of the orchids in those days, the plants collected were only sent home to die. The prevailing idea at that time being that all orchids must be grown in the hottest house and in a steamy atmosphere. Even in these days there are many people that persist in growing *Vandas* in their hottest house.

The general habit of the plant is erect, with short, stiff foliage arranged in two rows on each side of the stem. The flower spikes spring from the axil of the leaf, and usually bear about a dozen flowers, but strong spikes often produce eighteen and twenty. The best and largest varieties seldom have more than

seven to eight flowers on a spike. There are a great many varieties of this grand species, some of which are so inferior as to be scarcely worth growing, but fortunately this type is not common. The best type of *cœrulea* may be often distinguished by their growth—the leaves being usually longer, narrower and somewhat drooping. This type possesses flowers measuring from $3\frac{1}{2}$ to $4\frac{1}{2}$ inches across, of a good, full round form, of a uniform pale blue, with veins of deeper color. The lip is of a deeper hue with three longitudinal dark line; among the best of these is one called "Gresli," described by me in vol. 21 of the *London Gardeners*. The flowers will last fully six weeks in perfection. I have once before recommended this species as a good one to grow for cut flowers. It is sold in quantities comparatively reasonable, and it will pay to give a little more and get strong plants that will be likely to flower the first season; these strong plants are usually very "leggy" and not at all handsome in appearance, but can be relied upon to give a good crop of flowers; and when the plants are well established, the head may be cut off and started independent, the stumps breaking new growths in a short time.

In a former number I recommended a course of treatment for this plant, and need only repeat, that it requires abundance of air, moderate temperature, say that of *odontoglossums*, all the sunlight they will stand without burning the leaves and abundance of water—this may be somewhat withheld during the winter, but the leaves must never be allowed to shrivel. The largest and best grown lot of *cœrulea* in this country is owned by Mr. Smith, of Troy, N. Y., from whom the subject for the accompanying engraving was obtained. F. G.

Carnations.

On a recent visit to the establishment of Mr. N. Singler, Washington Heights, Ill., one of the most successful growers of carnations for the Chicago market, we found his force busily planting out his young stock in the field. For the past fifteen years Mr. S. has brought in, every other day, huge boxes and baskets full of cut carnations, and frequently has a good supply when there are few to be had from other growers, and we carefully noted every thing in connection with his place, to ascertain, if possible, what particular treatment produced such satisfactory results.

Though 3,000 plants were forced last year, and arrangements are being made to force 8,000 plants the coming winter, but four varieties are grown. They are Snow White, Snowdon, Garfield and Sport, the latter being an old variety of a dark velvety crimson. In past years De Graw and La Purite were largely grown, but have been discarded. A pink variety, of which the name is not known—it having been received by another Chicago florist from an eastern firm, under the name of "Queen of White"—is well thought of, and will be forced for flowers as soon as a stock is worked up.

A careful examination of Mr. Singler's place proved conclusively that his success was due entirely to unremitting care and attention to every little detail of culture. The young stock is planted out in the field, in rows a foot apart and about the same distance in the row, a walk being left at every fourth row. After being planted out, the young plants are at once staked and tied up in the following manner: Stakes are set midway



VANDA COLUMBA

between each plant in the row, and twine is tied to one end stake and then run down the row, taking a double turn over each stake, leaving the twine on one side of the plants. When the end of the row is reached, the twine is run down the other side in the same way, giving the plant a support from both sides. In this way the stakes support each other to a considerable extent, and in addition the staking is quickly and easily done.

Quite a large number of plants are bedded outside in the same way for summer flowers, which frequently bring winter prices on account of scarcity in the late summer months. These plants are never pinched back, being merely kept staked up and allowed to grow as they wish. Those intended for winter bloom are, however, pinched back several times during the season, this being discontinued earlier with some batches than with others, in order to provide for a succession of bloom after taken inside. Quite as much care is given to the plants when growing in the field as when in the houses, as a check in their growth during the summer would

prove fatal to a perfect crop of bloom in the winter. Water pipes are laid all through the field in such a way that the hose can be freely used during a spell of dry weather, a considerable sum having been expended to insure an abundant supply of water for all seasons. This is secured from a well ninety feet deep, the water being pumped by wind power to a tank holding 300 barrels, which is elevated to a height of twenty-five feet above the ground in order to give pressure, the whole being covered by a substantial building to keep from freezing.

The plants are lifted and planted in the houses by the middle of September; if allowed to remain out later in this climate, a few cold nights will check to such an extent that much of the early winter bloom may be lost. After being placed in the benches they are liberally watered and syringed, but never shaded at any time. Mr. S. says that he never shades his houses at any season of the year. Watering and syringing is the most important point. In fall and spring they are sprayed with the hose

frequently, and watered when they need it, which Mr. S. states may be once, twice or three times a week, or in dark weather not for a couple of weeks. Spraying should not be done in winter, except during very bright weather. The temperature of the houses is maintained at 50° nights, with a few degrees more during the day, depending upon the amount of sunshine. The young stock for next season's forcing is propagated from that which was forced the past season, and no evil results are apparent. In fact, everything is in the best possible condition. The plants are not permitted to have at any time a set-back, but are kept growing continuously, and this is undoubtedly the secret of success in all plant growing. A plant of any kind may recover from a check so as to be a fair plant, but to be grown on into a perfect and a profitable specimen, or to produce flowers in such quantities as to be most profitable, it must never be permitted to receive a check in its growth, however slight.

Worth Trying.

Where four-inch pipes are used for hot water heating there can be but little choice in regard to their situation; their size and weight require them to be put under the benches. The smaller pipes used in the pressure and steam-heating systems can be placed wherever experiment shows that they will do the most good. There is a growing conviction that the proper place for these pipes is overhead. In the few instances in which this arrangement has been tried the results surpassed expectation. In one case a pipe passed directly over a bench of carnations, with the result of an unusual quantity of flowers, while a bench close by, but beyond the influence of the pipe, produced but very few flowers.

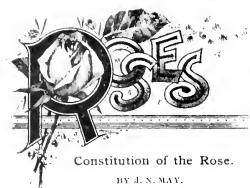
Considerable saving of fuel is claimed for this method. No cellar or excavation of any kind is necessary; the boiler can be placed on a level with greenhouse floor, or even above it if more convenient.

The proper arrangement of overhead pipes in a large house would be something like this: Have two flow-pipes of three inches run directly under the ventilators, one on each side, to further end of house; have them so placed that upon opening the ventilators the cold air will fall directly upon them. The return pipes might be of 2½-inch pipe, eight to twelve in number, as experience may decide, and should return just above the plants, within six inches perhaps; there will be no danger of burning anything. The experiment of Mr. Peter Henderson is conclusive upon that point. He found only 70° at a distance of two inches from a 2-inch steam pipe.

The pipes should be laid down grade, with highest point over boiler; the return pipes should be equal distances apart, and not three or four together, as they are usually placed. This arrangement of pipes might be called the natural system, the heat coming from above, as we get it from the sun. It will be much easier to control ventilation with pipes overhead; mildew would not have quite so good a chance.

We seem to be surely though slowly working away from the clumsy and wasteful methods we have heretofore employed. Among the new ideas that are coming to the front the overhead system has certainly made a good enough showing for itself to justify an extensive trial.

L. W.



BY J. N. MAY.

At page 420 Mr. M. A. Hunt treats this subject in a very clear manner, and the facts there enumerated are well worth the careful consideration of every rose grower in the country, for its contents are certainly timely and pertinent. Many, very many, of our western brethren in the trade claim, with just cause, that they are unable to place young plants out of doors for a rest in the summer on account of the hot, scorching sun and drying winds; this could be overcome to some degree by placing them in frames where they could be slightly protected from cutting winds, and if plunged to the rim in such a position, I do not think the sun would ever hurt them if placed out of doors before the first of June, unless the houses were shaded where the young plants were growing before being removed to the open air. Under those conditions the plants would naturally suffer from sudden exposure. From my own experience I have found that young roses always have a much better constitution if exposed to the full sun under glass after the first shift, and again after planting in their permanent quarters for blooming they should have all the sunlight possible to give them, for herein lies largely the secret of success. Grow your plants on in a steady, vigorous way from the time they are taken from the cutting bench till they begin to bloom, and the result will be healthy, fine plants and bloom—providing, of course, proper care and attention is paid them at all times. If, in addition, a careful selection of wood to propagate from is made, there need be no fear of loss of constitution in our forcing roses.

Another mode of resting roses could be followed out with all who have room and a soil any way suitable for growing roses; that is, plant the young roses out in an open piece of ground about the first to fifteenth of May, according to location. Let them grow all summer; even if they do not make large plants, they will be good for next season's work, which they are intended for, and as soon as indication of frost shows itself in the fall, lift and pot in small pots; store in cool house, and in February start into growth in a moderate temperature; continue growing them on till time to plant the following summer. By this means the plants get natural and thorough rest, and to those who fear their plants have lost constitution by overforcing, I strongly advise a trial of this plan.

I am often asked, as no doubt others are in the trade, are plants treated in this way, but there are a good many reasons why such roses are not generally offered for sale. The first is that the expense of growing them is considerable, whereas nearly every one wanting such, thinks they can be sold at a very low rate. A good plant from not less than a 2½-inch pot should be planted, and it cannot be produced for this purpose any cheaper than for selling from the same size pot; then it has to be hoed and kept clean all

summer, which with high-priced labor is a considerable expense added to the first cost. Again, the lifting, potting and storing all winter, all cost money, and if sold in their dormant state, often times a great many will die from injudicious handling, which the buyer will expect to have replaced or their value refunded; or if started into growth and made into nice, merchantable plants, a further addition is made to their cost, so that they can never be offered at what may be considered a cheap rate, by the trade in general. Where the rose receives the treatment due to its quietly beauty, it is not necessary.

Though the rose is naturally a very easy plant to grow, many treat it as if it was a plant suitable to any climate, conditions or treatment, and the result is, and ever will be under such conditions, failure, disappointment and abuse. It is a common thing to hear men complain that their roses have become sick. Little wonder, when it is generally found they have either been treating them to a tropical heat, in the cloudiest and coldest part of the season, or else have deluged them with water, and perhaps the two combined. Add to this the many other ways the poor rose is abused, and it is little wonder that it succumbs at last.

Summit, N. J., June 4, '87.

Fungus on the Roots.

I have had trouble with my roses this winter, which puzzled me for some time. It finally proved to be caused by fungus on the roots of the plants. This fungus had permeated the beds until the soil was full of it. When the soil was made up it was mixed with manure which was part cow and part horse, all being two years old. The plants did well until September, when they were top-dressed with more of the manure above described, and from that time the trouble commenced and gradually grew worse. I did not know at that time that the manure contained any horse manure, and can attribute the fungus only to the presence of it in the soil.

I took up some plants and washed the soil all off and carefully potted, but the fungus soon reappeared. I am now trying several remedies, and as soon as I find one of value I will state it for the benefit of the readers of the AM. FLORIST. I write this as an additional warning to florists to avoid using horse manure in any way in soil for roses. F.

Stocks for Grafting.

Having had a large experience in budding and grafting roses on many different stocks and in various climates, I may be able to state some facts from experience which will be of assistance in settling some points in this matter.

I have found the Manetti to be by far the best stock to produce large plants in a single season, but they at the same time produce many suckers. The best varieties to bud on this stock are the pink varieties of the strong growing mosses, Bourbons and H. P.'s. White and dark red varieties of the above-named classes will throw off the buds from about twenty-five per cent. of the plants the first year after being budded on the Manetti, and only thirty-three per cent. will unite well. Any variety worked on the Manetti will not do well out of doors in this climate; many of them will die the first year after being transplanted; when forced they will do well for one year, but after that they will not be satis-

factory. De la Grifferaie is good only where the soil is loose, wet or swampy; any vigorous growing variety will grow well on this stock for a year, but no longer. Weak growing varieties when worked on this stock will nearly all throw off the bud or graft, as they cannot use half the sap that these stocks run up, and the result is a crop of suckers, which will eventually take up all the sap and leave the bud to die.

Rosa canina (seedling brier) takes well when budded, but does not make quite as strong a growth the first year as those already mentioned, but the second year it outgrows any of the other stocks. The brier requires plenty of manure, and proves very satisfactory, producing very few suckers, when the bud is inserted level with the ground or a little below it. I consider this the best stock for this climate. I have plants that were budded on this stock in 1885 which have grown three to four feet from May to October, 1886, and made fine bushy plants. This is also an excellent stock for teas. I have Bennetts that were grafted on briers one year old, planted out on a bench last October, which produced shoots ten to twenty inches long three times the past winter, the wood being cut down each time for grafting, and at present they have shoots two feet long, and are as fine plants as any one would wish to see.

As soon as budded roses have made four inches of growth in the spring, they should be pinched back to give the bud a chance to unite strongly, and to induce them to break at the base. Treated this way, the brier will never be outgrown by any variety budded upon it, not even by Her Majesty.

I have a bench of American Beauty, of which some are grafted and some on their own roots; they are all growing finely, but the worked plants have produced the most flowers, and the blooms were of a richer color than from those on their own roots.

With a stock of only 10,000 plants budded on Manetti it would require two men's time to keep the suckers off, but with the brier it would require only one looking over in June, provided the roots are fully covered with ground up to the bud.

When planting grafted roses on a bench, set them in slanting, so as to cover the plant up to the bud.

Messrs. Hill and Sisley state that many hybrid perpetuals refuse to thrive when worked on seedling briers. Will either of the gentlemen please name the varieties for the benefit of the readers of the FLORIST? Has Mr. Hill ever successfully grown on their own roots for any length of time the following varieties: Baroness Rothschild, Mabel Morrison, White Baroness, Marie Bauman, Victor Verdier, Abel Grand, A. K. Williams, Crimson Bedder, Merveille de Lyon, Queen of Bedders, Horace Vernet, Etienne Levet, Mlle. Eug. Verdier, and a hundred others of similar growth?

Mr. Sisley recommends the Bengal and Multilora Polyantha as desirable stocks. Will Mr. Sisley please state how long it takes to grow these to a state fit for budding? Will the bark be thick enough in one season's growth for successful budding?

Rosa Caroliniana, which grows wild around here, and on which I have budded some, does not seem to "take" very well. I have some now planted for another trial, and will report results as soon as am able to do so.

The seedling brier itself bears beautiful

pink blossoms, and when, for instance, *Boule de Nègre*, *Niphetos*, *Mabel Morrison*, *Merveille de Lyon* and other white varieties are worked upon it as a stock, the center of the blossoms show a soft pink shade. T. SCHULTHEIS.

Compost for Roses.

Judging from the number of questions asked by correspondents in regard to the above, they have apparently not all read the notes in previous numbers on this very important matter. Therefore it may not be out of place to again refer to the subject.

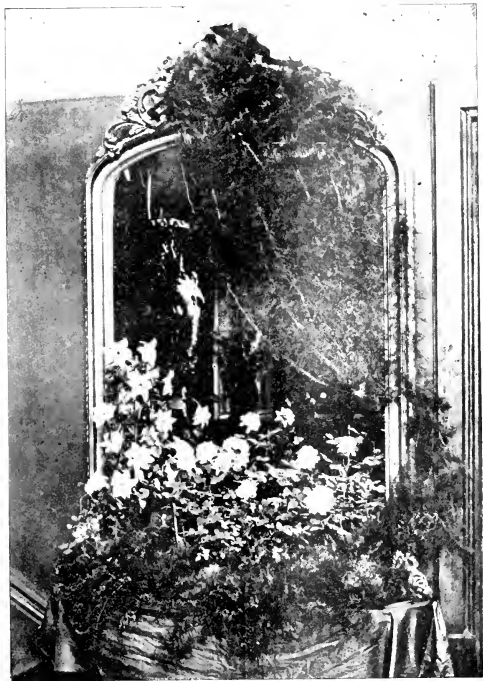
The best soil for roses is what is known by gardeners as a rich hazel loam of a moderately firm texture, and where this can be procured even at a little extra trouble, I would advise getting it by all means. Cut it with a spade from three to nine inches thick, according to quality. Where it can be procured in the form of an old sod, clear of trees (as decaying leaf mould is absolutely injurious to roses; avoid such by all means), it is so much more valuable. In soil as described above, the roots of the grasses will form a dense fiber all through it, sometimes ten to twelve inches deep; where such is the case I would prefer to take the whole depth, and if a little inclined to be yellow clay at that depth, should consider it an improvement to add some to the compost.

Having selected the soil to use, the next thing required is well decomposed cow manure; this, if possible, should be at least one year old. If this is on hand, commence your compost heap, to every eight or nine loads of good loam adding one load of equal size of manure, and so continue till enough is collected for the season's use. Where the soil is inclined to be heavy, add one part to ten of good sharp sand as you go along; let it lie a few days to get settled, and if inclined to heat, so much the better, as that helps to liberate the gases in the whole. Turn the whole over and beat it up fine with digging forks; if it is not considered rich enough, add a little pure ground bone as it is mixed to go into the houses, and you have a compost that will grow good roses if judicious care is taken of the plants. J. N. MAY.

Rose Reminders.

Now that the season for cut flowers is virtually over in many sections, it is time to prepare for next winter's stock again. As soon as the house or houses can be emptied out, it is a good plan to shake some fresh lime, with it make a good thick whitewash, and while hot thoroughly cover all the boards and benches inside the house, and if the whole floor can be covered with the same material, it will be beneficial. It purifies the atmosphere of the house and kills a great many insects and their eggs, thereby rendering the house much more healthy for the new plants. Before doing this, of course, all the dirt and dust should be thoroughly cleaned out. Besides purifying the house, a good coat of whitewash helps materially to increase the light, and during the dull days in winter this of itself more than pays for the trouble.

After this is done, cut some green soil in narrow strips and lay over the openings between the boards; then fill with soil prepared as before described, leveling it as you go, and when all is ready commence planting the whole house, and press plant as you go. When all the



MIRROR DECORATION.

plants are in position it is a good plan to leave a little hollow in the soil around each plant, so that each one will receive a good saturating when watered, without unnecessarily soaking the balance of the bed. The roots will then start out freely into the new soil much more readily than as though the whole was soaked with water at once. Syringe freely two or three times a day during hot, bright weather.

In about ten to fourteen days from time of planting a thick crop of weeds will appear over the whole of the soil, to exterminate which take a small rake and gently scratch over the entire surface of the bed. If this is done two or three times at about every third day, it will generally destroy the first crop effectually, after which on a fine, bright morning go over the whole and press firmly; then put on a light mulching of manure. Give a good watering to the whole, as the roots will have spread pretty well all through the soil by this time, and from that on that will be necessary is careful watering, syringing, picking the buds off as they appear, and any weeds as they grow. Under this treatment the roses

should make fine, healthy, vigorous growth, and be in good condition for bearing by first of October. J. N. M.

NEW ROSE, EARL OF DUFFERIN.—We have received a handsome colored plate of this new H. P. rose from the originators, Alex. Dickson & Sons, Newtownards, Ireland. The plate shows a finely formed rose of a deep, rich crimson, with large, handsome foliage. It is stated to be a cross between *Horace Vernet* and *Charles Lefebvre*, and said to produce its best blossoms when grown on brier stocks. It has received no less than six first-class certificates.

Mirror Decoration.

Our illustration shows a mirror banked with flowering plants, and with a draping of *Asparagus tenuissimus* across its face. No engraving can ever reproduce the light and graceful appearance of a decoration with this feathery vine, but the illustration may give an idea as to the best method of utilizing the *asparagus* to show its airy grace to advantage.

**Daily Record of Work Done at the
Lincoln Park Greenhouses,
Chicago, 1886.**

June 15 Tem. 78, 81, 79. SW. to SE. Took plants out of houses and placed in cold frame yard. Repotted winter flowering begonias. Potted fern seedlings.

16 Tem. 74, 65, 65. W. to N. Planted out geraniums, torenias and portulacas. Planted annuals in beds alongside the channel. Pricked out in frames half of seedling cyclamens and potted the other half.

17 Tem. 67, 79, 60. NW. to NNE. Bedded plants in front of the conservatory. Potted fern seedlings and coleus cuttings.

18 Tem. 60, 70, 70. NE. to SE. Cleaned beds, vases and frame yard. Staked hollyhocks.

19 Tem. 69, 75, 70. SW. to E. Continued staking hollyhocks, cleaning and trimming beds and flower stands.

20 Tem. 59, 77, 75. SE. Sunday.

21 Tem. 74, 82, 79. SW. to SE. Commenced planting elevated carpet bed. Repotted winter begonias and cleaned beds.

22 Tem. 72, 82, 69. SW. Same as yesterday.

23 Tem. 62, 74, 63. NE. Labeled roses. Standard and half standard roses now in their beauty.

24 Tem. 64, 64, 62. NW. to NE. Same as yesterday, and planted resedas among the roses.

25 Tem. 64, 74, 63. SW. to E. Trimmed and cleaned alyssum, foliage beds and abutilon group. Lined gladioli beds with yellow coleus and Mad. Salterii geraniums. Planted gomphrenas in place of begonias which had been removed; also ricinus and resedas.

26 Tem. 63, 74, 71. N. to E. Cleaned and trimmed beds. Arranged plants in frame yard.

27 Tem. 63, 72, 70. NE. Sunday.

28 Tem. 70, 74, 66. NE. Cleaned and trimmed beds. Potted fresh cuttings of Alternanthera aurea. Sowed seed of primulas, cinerarias and cyclamens. Piled up together in frame yard sashes and coverings.

29 Tem. 64, 72, 60. NE. Continued potting cuttings of Alternanthera aurea. Continued cleaning and piling sash in frame yard. Potted canna for decoration. Orlotoglossum citreum and Onocidium barbatum now in bloom in conservatory.

30 Tem. 67, 75, 70. NE. Continued potting Alternanthera aurea cuttings, cleaning and trimming beds.

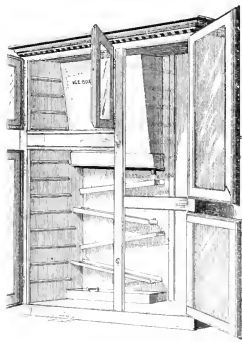
Florists' Ice Box.

We give an illustration of a very convenient ice box in use at the store of Hovey & Co., Chicago. The box is six feet long, eight feet high and a little over three feet deep. All the doors are glazed with three plates of glass with an air space between each, which allow the contents to be seen without opening the doors.

The ice is used on a different plan from the old style of box, it being broken up, and the galvanized iron tank shown in the illustration filled with it, from the top of the box, an opening being left there for that purpose. Small ventilating holes are made in the side of the tank near the top and a crack is left on each side of the bottom for drip, but the box is cooled more from the surface of the ice-filled tank. The system of drip troughs are provided with corrugated bottoms and carry the cold water back and forth for

the purpose of creating a moist atmosphere in the box. Mr. Bentley states that before adding the troughs, paper which had been dampened and laid over trays of roses at night would be perfectly dry by morning, but since adding them the paper would remain moist for a considerable time. In an ice box for meats and similar perishable articles a dry cold air is of course best, but flowers require a moister atmosphere to keep satisfactorily.

It has been claimed for this style of box that less ice is used, but Mr. Bentley states that they have undoubtedly used a little more ice than before the change, but that the improvement in the keeping qualities of the box far outweighs the small amount of additional ice used. He now successfully maintains a temperature



FLORIST'S ICE BOX.

of about 40° which it was impossible to do with the old arrangement. This is as low a temperature as flowers should have. The casing of all the doors is provided with rubber weather strips so that the doors fit tightly when closed. The trough in bottom of box is provided with an over flow which keeps it always half filled with water.

DOUBLE VIOLET VICTORIA.—This is a chance seedling supposed to be a cross between the *Car* and the *Neapolitan*. R. D. says in the *London Garden* that it appears to possess a good deal of the light of the *Neapolitan*, is wonderfully free and promises to make an excellent variety for pot culture. It has been awarded a first class certificate by the Royal Hort. society.

MATURE ON ROSES.—At page 308 it is stated by a "Western Florist" that he lost 600 roses the past winter by using a half-inch mulching of cow manure. Will "Western Florist" kindly explain how it happened to do so in his particular case? Since the above appeared in the *FLORIST* I have received several inquiries as to how it was possible that the manure should kill the roses, all the other treatment being consistent with their requirements. If "Western Florist" will kindly give us, through the columns of this paper, some details of how the roses were affected, we shall all feel very much interested and at the same time greatly obliged. J. N. MAY,

Plant Notes.

ASTERS.—I have found Zingiebel's white the best aster of its color for all purposes. I have a few blooms of this at this early date. H.

BEGONIA LEONORA.—This pure white begonia blooms remarkably free with me, being continually covered with flowers the year round. W.

PASSIFLORA CONSTANCE ELLIOTT.—The *London Garden* publishes a colored plate of this passion flower. It is highly praised by English writers.

CHIOANTHUS VIRGINICA, or white fringe tree is a hardy shrub which should be grown by the florist for its handsome flowers which sell readily in the spring.

DAHLIA CAMELLIAFLORA.—This white dahlia is of good form and color and is excellent as a cut flower. The blooms are of the average size of the tall growing kinds. H.

SPIRÆA VAN HOUTTEI.—This is a valuable hardy shrub, which is not only ornamental but produces corymbs of white flowers which may be sold to advantage in spring. W.

AGERATUM.—The dwarf blue ageratum is largely used in carpet beds in all the parks of Chicago for blue lines. It is used to better advantage than lobelia in many positions.

LILIUM TIGRINUM.—The double variety of this lily sells quite readily as a spring flower and costs but little care. The double blooms last better than those of the single variety. H.

PRIMULA ORONICA.—Growers of this primula continue to sing its praises. A writer in the *London Garden* states that the cut blooms lasted three weeks with an occasional change of water.

DAHLIA PRESIDENT.—This is a seedling raised by Mr. D. S. Heffron, Washington Heights, Ills. The bloom is of average size and the color is the richest of dark velvety crimson. It is apparently of vigorous growth. W. H.

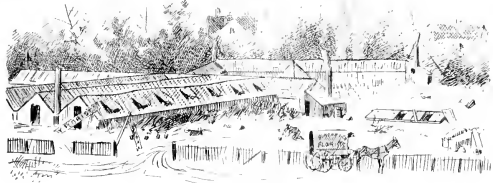
SWEET PEAS.—The growing demand for these blossoms should not be overlooked. Every florist should have a quantity to cut from. They cost but little outlay and are much liked by ladies for the corsage as the blooms last so long.

DEUTZIA GRACILIS.—This is the best deutzia for the latitude of Illinois, as other varieties do not always stand our winters satisfactorily. The flowers are quite salable in the spring, and frequently return a few dollars for but little trouble. W. H.

RHUS COTINUS.—The feathery blooms of the "smoke tree" are liked by many flower buyers, and it would not be space lost for florists to plant a few in parts of their grounds where they would be ornamental and probably produce a few dollars as well.

DICTYANUS ALBUS is well worth a place in the florist's hardy garden. The flowers are attractive and the foliage fragrant. It is best propagated from seed. D. Fraxinella produces reddish purple flowers which are of value, but not as salable as those of D. albus.

CALLAS. Those who grow these for winter flowers are now resting the plants. This is usually done by laying the pots on their side out of doors in a semi-shaded place, or when allowed to remain in the greenhouse, by cutting the plants down and drying out by withholding water.



AN UNPROFITABLE GREENHOUSE ESTABLISHMENT.

FIGUS ELASTICA.—To successfully propagate this the most important point is to have the wood for cuttings in suitable condition. The parent plant must in all cases be strong and healthy. Strong young shoots are the best; weak shoots strike readily but make poor plants.

CARNATIONS AS BEDDING PLANTS.—A bed of blooming carnations in early spring is not often seen, but such an one, planted for a customer by Mr. J. T. Anthony, a Chicago florist, this spring was handsome and attracted much attention. The plants were large and in full bloom when bedded.

CARNATION JOSEPH PERKINS.—Mr. D. S. Heffron, Washington Heights, Ill., thinks highly of this carnation. It is described by him as an improved *La Purite* in color, produced on long stems, is a continuous bloomer rather than a cropper, and the blooms set readily. He considers it a very desirable carnation.

LILY OF THE VALLEY.—To secure successful crops of lily of the valley out of doors in the spring, plant separate beds on the south, east, west and north sides of buildings or fences. That on the south will bloom first and that on the north last. The beds should have a boxed edge to hold the water when it is found advisable to water them.

W. H.

CHRYSANTHEMUMS.—Plants to be grown for exhibition must have continual attention, as a slight neglect for only a short time may work harm which cannot be remedied after once done. If the plants are stood too close together, become mildewed or dry at the root, they will be injured to such an extent that it will be impossible to grow them on into perfect specimens.

THE VIOLET DISEASE.—Two Chicago florists are of the opinion that this is the result of neglect and careless watering. One who grows the single *Victoria* in quantity relates that during the entire winter, when the plants were receiving the best of care not a trace of the fungus was to be seen, but that during the rush of spring trade the violet house was somewhat neglected and the fungus began to make its appearance.

ANTHURUM ANDRANUM FLORE ALBO.—This novelty has been raised from seed by a Viennese horticulturist named Herr Mastner, and is said to possess a pure white spathe of the same texture and pitted appearance as in the type, with a brilliant red spadix, which should form a beautiful and striking contrast. This

novelty should also prove useful as a parent, from which, by careful hybridization, may be obtained still more beautiful forms.

STOCKS.—Some handsome beds of stocks are now in bloom at Lincoln park, Chicago. Those bedded are all doubles, and are arranged in lines of distinct colors. They were grown in pots, and bedded when the flower was sufficiently advanced to decide as to its color and whether quite double. These beds are of value in furnishing bloom from the time the tulips are gone until the summer bedding stuff is fairly under way.

FUMIGATING.—In the hurry of spring trade we are liable to overlook or neglect for the time being some cultural points which are ordinarily attended to with regularity; among these is the semi-weekly fumigation. Don't let the days set for this go by once without attending to it, no matter how busy you are with other work. It takes but a few moments, and if neglected even for a short time, the evil results multiply with such rapidity that you may not be able to repair the damage for months afterwards.

HYDRANGEAS.—These may be propagated in spring from young shoots which have sprung up from the old plants. The roots should be disturbed as little as possible, and as soon as rooted in small pots they should be transferred to 6 or 7-inch pots, in which they will remain. A cold frame is a good place for them during summer; plunge the pots into ashes and protect until the roots have a good hold on the new soil. They may remain here until housed in the fall. While this plant will do fairly well under adverse circumstances, it requires good care and treatment to produce the grand plants which are such a surprise to those who neglect theirs.

B.

SIZE OF PLANTS.—In one of the March numbers "Veritas" asks "if it is honest for florists to sell for 2½-inch pot plants, those which were grown in thumb pots?" When plants come by mail the soil is washed off and it is hard to tell what sized pots they were grown in, but my experience this spring is that different firms send out different sizes though all are listed as from 2½-inch pots. An eastern establishment which is considered to be a good reliable concern sent me plants this spring which were no better than rooted cuttings, being hardly well rooted, though I was charged the same price as for well grown pot plants. From another

firm I ordered plants to be sent in their pots. They sent good thrifty plants with a ball of earth just as they came from thumb pots, though 2½-inch were ordered and paid for. Too much cannot be said in regard to the evils of substitution. It should be stamped out or the mail and express trade will certainly receive a more serious check than it already has from this vicious practice.

A.

HEATHS.—Heaths do not well bear for any time a close, confined atmosphere, especially in positions either overhanging or too much crowded by other plants, or when placed in a conservatory that is kept warmer than greenhouse plants require to be. In a house of this character where an ordinary temperature is maintained, and that admits a fair amount of light, heaths may be kept during the three or four weeks they are in bloom without any danger of their suffering, particularly if a little forethought is exercised in selecting places for them where they will not be too far from the glass, and where air is admitted. It is the indiscriminate thrusting of these and other light and air-loving plants into the positions in conservatories where they are supposed to be most effective, and where they are in a state of semi-darkness, or keeping them too long where some or other of the conditions essential to their well-being are absent that is injurious. The sorts that flower in spring and summer especially can be made use of in the way under notice, as at these seasons the length of the days, coupled with the freer admission of air to the structure, is more in accordance with their wants than at other times of the year.—T. B., in *London Garden*.

An Unprofitable Greenhouse Establishment.

The accompanying sketch tells its own story. It is needless to say that the owner of the place illustrated finds the florist's business unprofitable, as he would also find any other business which he managed on the same principle.

The owner of this place is not a member of the S. A. F. He hasn't got the time, money nor inclination to attend the meetings, and says their proceedings are all rot. He is not a subscriber to the *AM. FLORIST*. When it was recommended to him he said: "I know my business better than any fool paper can tell me, and I haven't got any time to waste on it!"

From the appearance of his place, we judge that he really hasn't time for anything, certainly none to pay bills, as several creditors have ascertained. He complains that his competitors conspire against him, and cut prices; that they lie about him to his customers; that every other florist in the town is a dead-beat from "wayback, and he regards every one of them as personal enemies.

If a brother florist is short of stock of which he has a surplus, and wishes to buy from him, he charges double retail price. If he wants to buy himself, he sends a stranger to buy at retail, to avoid retaliation, and wastes a whole day hugging himself to think how smart he has been.

When you meet this man you cannot but think of his roses, he has such a mildewed appearance. He lives continually in the past. The "business ain't what it was ten years back," is the burden of his song. "There's too many in the business now."

New Roses of 1886.

AMERICAN BEAUTY,

W. F. BENNETT,

THE BRIDE,

Also new Roses of the present year.

PAPA GONTIER,

COMTESSE DE FRIGNEUSE,

MARQUIS DE VIVENS,

and all other choice and standard varieties in very fine plants at lowest rates for first-class stock. Special quotations for large quantities on application to

J. N. MAY,

Rose Grower,

Union County,

SUMMIT, N. J.

Novelties in Roses.

NOVELTIES IN GERANIUMS.

The new French Geraniums for 1886 will be ready for shipment September 15. Twelve of the very finest out of this year's new collection.

Glory of France, Remon, Bergeant Bobillet, Arc-en-Ciel, etc.

The New Roses embrace some very promising varieties.

Comtesse de Frigneuse, Mad. David, Camille Kroux, Claire Cochet, and others.

Send for descriptive list and wholesale price list of other choice stock.

HILL & CO.,

RICHMOND, IND.

THE GRAND NEW TEA ROSE

"Comtesse de Frigneuse"

This Rose is probably the best ever raised for florist's work; the bud is of "Niphetos" or "Bennett" shape, color of "M. Neil," and rather larger than a duck's egg; a perpetual bloomer.

I am now booking orders for delivery from March to May, of this rose, as well as of the grand new Hybrid,

"CLARA COCHET."

All the new Roses of Autumn, 1886, will be ready for delivery in March.

My Catalogue of these, as well as my general Catalogue, free on application.

A splendid lot of "Perle des Jardins," "Niphetos," "M. Neil" in pots, always on hand.

Any quantity of ground plants of "Jacqueline," "Mme. Gabriel Luizet," "Paul Seron," "Magna Charta" and similar kinds.

JAMES L. BOYSON,

CAEN (CALVADOS) FRANCE.

SUPERB

New Roses

OF 1887.

ALEX. DICKSON & SONS

Beg to announce their three Pedigree Seedling Roses,

H. P. Earl of Dufferin, undoubtedly the finest dark rose in cultivation. Seven first-class certificates, the greatest number ever awarded to any one new rose. Crown-into, plate of this superb rose, mailed free on application.

H. P. Lady Helen Stewart, crimson-seedling, a thoroughly distinct color. For autumn bloom this variety is unsurpassed.

TEA Miss Ethel Brownlow, a truly grand rose, and free flowering Tea Rose. This variety is possessed of greater lasting properties than any variety with which we are acquainted. Awarded six first-class certificates.

PRICE 10s (ten shillings and six-pence). Set of three varieties 27s (twenty-seven shillings) each. Descriptive Lists on application.

A great demand for these Sterling Roses, being anticipated, it is particularly requested that all who require a supply will order as early as possible, to prevent disappointment.

The Royal Nurseries,

NEWTOWNARDS, Co. Down, Ireland.

1887.

ROSES FOR FLORISTS.

1887.

We offer the largest and most complete stock of Roses in this country. Straight 2½-in. plants. Propagated from thoroughly matured field-grown plants, and grown in ordinary soil without manure or any other stimulating material. They resist disease, start quickly, grow rapidly, and give best results.

ALL THE LEADING VARIETIES in large supply at very reasonable prices—*Ame. Beauty, Papa Gontier, W. F. Bennett, The Bride, Her Majesty, La France, Gent. Jacq., Perle des Jardins, Niphetos, C. Mermet, M. Robert, Perry Guillot, Souv. d'un Ami, etc.*THE NEW ROSES OF '86.—*Comtesse de Frigneuse* (Golden Pearl), *Sou. de Victor Hugo, Marquis de Vivens, Camille Roux, Marguerite de Ruon, Flavian Radillon, Exadelphe, Comtesse Houae de Choiseul, Mad. David, Claudius Levat, Edmund de Riquet, de Sazanne Blanchet, Souv. de Admiral Courbet, Comtesse George de Roquette Buzon.* Set of 14 for \$5, and very reasonable per dozen and hundred.HYDRANGEA GRANDIFLORA.—*A. Specialty—Immense Stock, strong open ground plants, all sizes, very fine.* Also *Japan Indica, New White Hagele, Candide, Hagele, Japonica Nana, Japan Snow Ball (Viburnum plicatum), Rosa Rugosa*, and a full line of all the best *Hort. Shrubbery and Climbing Vines*, including *Andropogon Veitchii* (Boston Ivy), *Abelia Quanaia*, *Sweet-Scented Honey-suckles in variety*, etc., etc.

Special Wholesale Price List free on application, to Florists, Market Gardeners and Dealers only. Lasts priced, special selections made, on correspondence solicited. Address,

THE DINGEE & CONARD CO.,

ROSE GROWERS,

WEST GROVE, CHESTER CO., PA.

A LARGE STOCK OF

FINE ROSES

For Bedding and Florists' use, including

AMERICAN BEAUTY,

PERLE DES JARDINS,

MERMET,

NIPHETOS,

SOUV. DE MALMAISON,

QUEEN OF BEDDERS,

SOUV. DE UN AMI,

CORNELIA CROOK.

Also a fine stock of different varieties of Hybrids in 2½ to 3-in. pots.

For prices, etc., address

FOREST GLEN FLORAL CO.,

173 WABASH AVENUE, CHICAGO.

:-: ROSES :-:

FOR—

FLORISTS' STOCK.

Our Summer Trade List is now ready, and will be sent to all applicants.

MILLER & HUNT,

Wright's Grove, Chicago.

:-: ROSES :-:

We have of the following, Tea and Hybrid:

Tea Roses, a fine lot of plants in 3 and 4-in. pots. They are all graded last fall, ready for shipping now on seedling root prices. *Perle des Jardins*, Niphetos, C. Mermet, etc., each: \$3.00 per dozen, \$35.00 per 100. *Sou. de W. F. Bennett*, 50 cents each, \$5.00 per dozen, \$50.00 per 100. Larger plants, \$5.00 per 100.

NEW :-: ROSES.

Bride, Sun-set, Am. Beauty, Grace Darling, Souv. de Victor Hugo, Camille Roux, red; M. Saz. Blanchet, pink; Marquis de Vivens, rose, 50 cents each, \$5.00 per dozen. Cash must be sent with order.

SCHULTZ'S BROS.,

P. O. Box 78.

COLLEGE POINT, L. I.

10,000

ECHEVERIA SECUNDA GLAUCA,

Per 100, \$3.00.

CHARLES HEINZ, Sharon, Pa.

10,000 ROSES.

20,000 BEDDING PLANTS.

Including the choicest varieties, and grown from good quality stock, in 2½, 3 and 4-in. pots, and will be sold at bottom prices. Also 300 Prairie Queen roses, in 3 and 4-in. pots, and 5 greenhouse furnaces, with grate bars and doors complete, that I will dispose of cheap. No catalogue. For particulars address,

W. T. HILLBORN, Florist,

NEWTOWN, Bucks Co., PA.

FOR SALE OR RENT

AT CLAYMONT, DEL.

On the P., W. & B. R. R. (19 miles below Philadelphia) five greenhouses and small cottage.

Apply for particulars to

ARTHUR M. BURTON,

504 Walnut St., Phila.

THE NEW ROSES,

American Beauty, Bride, Her Majesty,

W. F. Bennett, Papa Gontier,

Niphetos, Bennett, Pierre Guillot and La France. For prices, apply to a general collection of greenhouse and bedding plants at a very low price. Send for prices.

JACOB SCHULZ,

1325 E. BROADWAY, LOUISVILLE, KY.

ROSES.

20,000 YOUNG ROSES

In 2-inch and 3-inch pots in fine condition of the following varieties

American Beauty, The Beauts, Mermet, Perle, Niphetos, Bennett, Pierre Guillot and La France.

For prices, apply to GARFIELD PARK ROSE CO.

105 W. MADISON STREET, CHICAGO.

PAPER SEED BAGS

For Flower and Vegetable Seeds,

CLARK BROTHERS, Manufacturers, 61 Ann St. N. Y.

The Cut-flower Trade.

June Floral Fashions.

BY OUR NEW YORK CORRESPONDENT.

Summer never was ushered in when so many exquisite styles were in readiness to present her flowers and show them off at their best. Wedding entertainments held both in and out of doors are giving opportunity for rich arrangements. There is an inclination to use out-of-door flowers for the decoration of rooms, but no heavy effects are fashionable. Fine wire is covered with syringa, snowballs, pea blossoms or lilies, and these are used in drapery in many ways that give fantastic effects. Curtains of these flower-covered wires are drawn up very high between the folding doors, and the chains are drawn together at the ends, where they are finished with tassels of bloom. Veils are made of the same wire, with which pictures and mirrors are trimmed in effective ways. Wedding canopies are simply a suspended crown with the flower-drawn wire attached, and the curtains drawn back to meet the foliage plants with which the background and side effects are completed.

The richest out-door arrangements have been made with peonies. High screens covered with asparagus and ferns have arched tops formed of deep pink peonies, and sometimes an angle cut off one side made of them. These screens form a background for the wedding party, who have a tree for a covering. There is such large scope for fine and finished floral work in screens that these are very popular and are introduced in all extensive arrangements. Lichen wall pockets and cornucopias filled with trailers and flowers are attached to trees, lilies and arbors. Pottery logs or natural tree stumps are handsomely garlanded and surmounted with rustic vases gracefully filled. Rustic sofas and pagodas are draped in an unique style with chains of peonies, these appearing in side ornaments, and not surrounding.

The choicest wedding bouquets are made of stephanotis, ferns and asparagus; gardenias and orchids, with a few orange blossoms, are also fashionable. Some of our florists adhere to the Niphetos rose bunch made very large. All fashionable wedding bouquets, favors or bunches to be carried in the hand are tied with a very wide satin sash, or one of gauze ribbon, also very wide. The Victor Verdier rose, in combination with selected mignonette, is in high favor for carrying to dinners and social entertainments. A large loose bunch of these flowers tied with a wide pink satin sash is very beautiful. Bridesmaids are carrying hand bunches of snowballs and syringa, or the Marie Antoinette baskets, which are lined and trimmed to match the color of the flower they contain. Daisies, corn flowers or moss rose buds are the flowers most demanded.

Brower's corsage bouquet is the rage of the hour. It is a dainty combination of Souvenir de Malmaison and Xavier roses, with Faust pansies, a small sprinkling of lily of the valley, and a fern and asparagus fringing. Field buttercups or yellow daisies are universally worn in the street.

Boxes of flowers are given an exquisite touch by the introduction of wax paper to divide the several species of bloom among their contents. The artistic arrangement of a box of cut flowers adds largely to its value. The persons who spend freely for flowers are not satisfied to have many kinds of bloom pushed

into a box, sprinkled and wadded down with a sheet of paper. The roses must be laid in so that not a petal is ruffled—those with the longest stems and deepest color first, then the paler roses, but wax paper should be put in just where the bloom begins, not under stems.

Floral souvenirs this week have been of a choice description. A gilded Marie Antoinette bag was lined with old gold satin and trimmed up one handle with the same color ribbon finished with bow and ends; it was filled with yellow orchids and ornamented on the outside with a cluster of golden daisies. This was sent to Mrs. Elliot Shepard on the drawing car as she departed for San Francisco. Thorley made for a New York belle on her departure for Europe a fac-simile of the steamer La Bourgoine, which was a rich bit of work, particularly the cushion on which the piece was placed, which represented a sail. A billow bed of ferns was arranged so that each front rose to represent a swell, and here and there white-caps were introduced of *Spirea japonica*. The steamer was five feet long; the sides were made of ivy, the bow of white roses, the deck of lily of the valley, and the taffrail of *Mermet* rose buds. The masts and rigging were formed of lily flowrets and lily sprays.

A novel piece given yesterday for a phidippa present was an almond made of cowslips, which opened and contained lion buns. The almond rested on a square cushion of moss rose buds. The favors for children's parties are made up with great care. These are musical instruments, and give great delight. Tambourines, banjos, violins, cornets and guitars were distributed lately at a birthday fete given for a child; it was held out of doors. The favors were hung on a large bush until distributed. Wreaths of pea blossoms are very fashionable for girl gardenias. These are made very narrow, and are placed back of the bang. Only the white or pale pink pea blossoms are used. A large bunch of the same flowers are carried in the hand.

The fashion of trimming gowns with flowers is steadily increasing. Tulle dresses of graduates have been exquisitely trimmed with natural blooms, daisies and lily of the valley being almost universally used. Brides' gowns are profusely ornamented with gardenias, stephanotis and orange blossoms. A spray runs across the corsage to the left shoulder and down the skirt some distance, widening as it is finished in the side drapery.

The floral garland is another novelty in large request. A round chain is made of lily of the valley without foliage. It must be woven very evenly. At one end it is finished with *adiantum*, a few leaves of lily of the valley and loops of very wide satin ribbon. One of these garlands was wound around the casket of a child with beautiful effect. It is a very chaste decoration for the coffin of an adult. Some very shapely supports for caskets are made with flowers. These are wooden and incised with wire frames which are studded with blossoms. They do away with the stools of undertakers, and when rounded at the ends are susceptible of elegant finish.

BALTIMORE.—At the June exhibition of the Maryland Hort. society, held June 9, the exhibitors were Messrs. Garrett, Easter, Bauer, Pentland, G. H. and G. W. Hyde, Brackenridge and Mrs. A. and E. Hoen.

Boston.

The Gardeners' and Florists' club has voted to have an excursion and picnic in the latter part of July, and a committee of twenty-five has been appointed to perfect the arrangements.

It is rumored that Mr. C. M. Hovey, the veteran horticulturist, is in failing health. Mr. Hovey is an old man now, but in his time he was one of the foremost and most progressive men in the business, and it is the hope of all who know him that he may fully recover and his life be prolonged for some years yet.

Mr. W. A. Manda, of the Harvard Botanic Garden, who is an enthusiast in athletic games, met with an accident at the gymnasium recently by which one of his ribs was broken. But "it's an ill wind that blows nobody good," and if this accident leaves Mr. Manda with time on his hands to devote to writing more cypripedium papers, the readers of the *FLORIST* will be gainers thereby.

Galvin Bros.' bill against the city of Boston for flowers and decorations furnished during the visit of Queen Kapiolani amounts to over \$1,000. Judging from the criticisms of some of the daily papers, \$700 a day for flowers seems to be considered rather a steep figure. It certainly looks as though the flower business about here is not in a dying condition as yet.

Decoration day was extensively observed this year, and the demand for flowers was very heavy. G. A. R. orders for large numbers of small bouquets are not as much sought after by the florists as formerly. Private orders are more profitable, and since it has become the custom to decorate the graves of friends on that day regardless of whether they had been soldiers or not, the demand for moderate-priced designs has increased greatly. A peculiar feature of the flower market this year was the unusual demand for and great scarcity of all kinds of flowers for several days succeeding Decoration day. The continued dark weather which prevailed was partly the cause of the scarcity. Prices of many varieties were higher than at Easter.

The annual rhododendron show of the Massachusetts horticultural society was held on Saturday, June 4, and was very well attended. It was about a week too early, and the display of rhododendrons was consequently smaller than that of last year. As a whole, the exhibit was quite effective, there being an abundance of such showy flowers as *Ghent* and *Mollis azaleas*, irises, peonies, magnolias and scarlet poppies. The principal exhibitors of rhododendrons and azaleas were J. H. Hammevel, Mrs. F. B. Hayes and C. M. Hovey. Other exhibits worthy of notice were a collection of clematises from J. H. Woodford, a seedling clematis and seedling rhododendron from Jas. Comley, splendid gloxinias from Kenneth Finlayson, English and German irises from Ed. Fewkes & Son, and a collection of hardy herbaceous flowers from W. A. Manda. Mr. Manda also showed some fine pots of *Gladolius Colvillei alba*. Quite interesting and in some cases amusing were the children's exhibits of pot plants. Each child was favored with a small gratuity, none being left out. This is a new idea here, and is certainly very commendable. The display of rhubarb, lettuce, cucumbers, asparagus, etc., was quite tempting. W. J. S.

TOPEKA, KAN.—The Topeka Floral Co. was incorporated June 1. Bristol Sisters will control the new enterprise.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.25.

Advertisements, 10 Cents a Line, Agate;
1 inch, \$1.40; Column \$14.00.
Cash with Order.

No Special Position Guaranteed.
Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.
No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, Nurserymen, and dealers in
flowers pertaining to those lines ONLY. Please to
remember it.

Advertisements for July 1 issue must
REACH US by noon, June 25. Address,
THE AMERICAN FLORIST CO., Chicago.

Catalogues Received.

Segers & Co., Lisse, Holland, Dutch
buds; Polman Mooy, Haarlem Holland,
Dutch buds; C. Smith & Son, Guernsey,
England, bulbous roots; J. M. Thorburn
& Co., New York, seeds and bulbs; H.
J. Growtage, Brooklyn, N. Y., greenhouse
building; J. van Loghem, Haarlem,
Holland, Dutch bulbs.

Lack of "Growers" in Large Cities.

Yes, Mr. Meehan, you are right; there
are no flower "growers" in New York
city. It is some time since Mr. Asmus,
Mr. Roehrs or Mr. Henderson saw fit to
run their greenhouses on Broadway.
Hence Brother M. will find the names of
such growers as produce the main supply
for the large cities are located and re-
ceive their mail in the smaller adjacent
villages. (See AMERICAN FLORIST CO.'s
Directory.)

WHITE JACQUES.—We learn from a
daily "moulder of public opinion" that
at a recent wedding the bride carried
"an exquisite bouquet of white Jacques
roses and lily of the valley."

HORTICULTURAL BUILDING.—Mr. H. J.
Growtage, Brooklyn, N. Y., sends us a
very neatly gotten up pamphlet illustrat-
ing his method of constructing green-
houses and glazing same without the use
of putty.

PROPAGATION OF PLANTS is the title
of a neat volume of 350 pages by Andrew
S. Fuller, published by the O. Judd Co.,
New York. It treats clearly on all known
methods of propagating trees, plants and
shrubs, and is liberally illustrated. A
valuable feature is an alphabetical list of
trees, shrubs, etc., with a short note on
the best methods of propagating each.

THE BENNETT ROSE.—A grand shoot
of this rose is sent us by Messrs. R. P.
Crittchell & Co., Cincinnati, to show how
the Bennett grows with them. The shoot
measures 3½ feet in length; it had been
cut back at a height of two feet, and four
of the buds below the cut had broken,
giving four additional shoots of equal
size, each bearing three flower buds.

New York Retail Prices.

Perles, Souvs., Niphotos and Bennetts,
\$1; Bon Silenes, 50 cents; Jacques, 75
cents to \$1; La France and Mermets,
\$1.50; hybrids, \$1; Cooks, \$2.50; moss
rose buds, 75 cents; carnations, 25 cents;
lily of the valley, \$1 to \$1.50; callas,
\$1.50; longiflorums, \$3; forget-me-not,
35 cents; heliotrope, 25 cents; spiraea
and mignonette, 35 cents; pansies, 20
cents; gardenias, \$1.50; dwarf gladioli,
\$1 a dozen; field buttercups, 25 cents a
bunch; gladioli, 35 cents a spike; field
daisies, 15 cents a bunch.

Wholesale Markets.

Cut Flowers.

BOSTON, June 10.	
Roses, Teas.....	1.00 to 2.00
" Fancy Roses.....	3.00 to 6.00
" Carnations.....	50 to 1.00
" Sulist.....	1.50 to 2.00
" Double stocks.....	2.00
" Adiantums.....	1.50
" Lily of the valley.....	4.00
" Anemiums.....	1.00

NEW YORK, June 10.	
Roses, Perles, Niphotos, Souvs.....	\$3.00 to 3.00
" Mermets, La France.....	6.00
" La France.....	6.00 to 8.00
" Cook.....	8.00
" Am. Beauty.....	2.00
" Bonnet.....	3.00 to 4.00
" Bon Silenes.....	1.00 to 2.00
" Carnations.....	.50
" Lily of the valley.....	3.00 to 4.00
" Sulist.....	.25

CHICAGO, June 11.	
Roses, Perles, Niphotos.....	\$3.00 to 6.00
" Mermets.....	6.00 to 7.00
" Jacques.....	6.00 to 8.00
" Cook, Souvraux.....	2.00
" Carnations.....	1.00
" Sulist.....	.40
" Adiantums.....	.25
" Field Daisies.....	5.00 to 6.00
" Lily valley (scarcely).....	1.00

PHILADELPHIA, June 10.	
Roses, Teas.....	2.00
" Perles, Niphotos, Bennetts.....	4.00
" Mermets, La France.....	6.00
" Cook.....	5.00
" Fancy hybrids.....	10.00
" Carnations.....	.50 to .75
" Bonardia.....	.25
" Heliotrope.....	.50 to .75
" Sulist.....	.30.00

Wm. J. Stewart,
WHOLESALE DEALER IN
CUT FLOWERS,
67 Bromfield St., BOSTON.
Consignments solicited.

W. S. ALLEN,
WHOLESALE FLORIST
940 Broadway, N. Y.
Price Lists mailed to applicants.

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WHOLESALE - FLORIST
No. 11 West 28th Street,
Near Broadway, NEW YORK.

Consignees of the principal growers about New York.
Lilies of the Valley and Lilies at all times.

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69 West 28th Street,
(Telephone No. 673, 39th St.) New York
Branch, 38 S. 10th St., Phila., Pa.
Greenhouses, Creskill, N. J.

ROSS & MILLANG,
Wholesale Florists,
NO. 1168 BROADWAY,
(Formerly at 225 4th ave.)
Bet. 27th & 28th sts., NEW YORK.

OUR NEW TRADE
DIRECTORY
Contains over
6,000 Names of (Live)
Florists, nurserymen and seedsmen, in the United
States and Canada.
PRICE ONLY ONE DOLLAR.
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Thos. Young, Jr., & Co.,

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INCORPORATED 1885,

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—WHOLESALE FLORIST,—
17 CHAPMAN PLACE, (Near Parker House)
BOSTON, MASS.

Orders by Mail, Telephone, Telegram or Express
promptly attended to. Night dispatch should
be sent at full rate to insure delivery for
early morning trains. Store open from 7 a. m.
to 6 p. m. Return telegram if order cannot be filled,
or if desired in any case. Mention Am. Florist.

J. C. VAUGHAN,

WHOLESALE CUT FLOWERS

Direct all cut flower orders to cut flower
department

VAUGHAN'S SEED STORE, 42 La Salle St., CHICAGO.

WELCH BROS.,

WHOLESALE FLORISTS,
165 Tremont Street, BOSTON, MASS.
We make a specialty of shipping choice roses and
other flowers, carefully packed, to all points in
Western and Middle States.

Return Telegram is sent immediately when it
is impossible to fill your order.

HAMMOND & HUNTER,
Wholesale dealers in
Cut Flowers and Florists' Supplies
57 West 30th Street, NEW YORK.

LaRoche & Stahl,
Florists & Commission Merchants

CUT FLOWERS.
1237 Chestnut Street, PHILADELPHIA.
Consignments Solicited. Special attention paid to
shipping. Mention AMERICAN FLORIST.

C. STRAUSS & CO.
Telephone 977-3. WASHINGTON, D. C.

Grower of and Wholesale Dealers in
ROSES AND OTHER CUT FLOWERS.
1000 Puritan Planted for coming Winter.

CUT FLOWERS

The choicest Cut Flowers at lowest market rates
shipped C. to D. Telephone connection. Use A. F.
Code when ordering by telegraph. For prices, etc.,
Address—

J. L. DILLON, BLOOMSBURG, PA.

John Breitmeyer & Sons,
Cor. Gratiot and Miami Aves., DETROIT.

Wholesale Cut Flowers

Roses, Carnations, Tulips, Lily of the Valley, Jon-
quills and good assortment of other choice flowers
shipped in any desired quantity on short notice.



New York.

Frank Hamilton has been very sick. G. Stumpf sails for Europe the 15th inst.

W. S. Allen is now handling John Taylor's roses.

Buller & Lee are going to open at Bar Harbor for the season.

John Henderson, of Flushing has just completed three large rose houses.

Albert Benz leaves this month for Europe, and it is rumored that Thorley is going.

Siebrecht & Wadley are doing some fine work on the grounds of E. H. Johnson, Esq., at Greenwich, Conn.

John Reid has put up three houses 250 feet long, of the most approved kind, with spruce benches and locust supports. They cost \$14,000.

An elaborate design—a large plateau with the American flag in relief, was the floral souvenir presented to James G. Blaine when he sailed on the Ems the 8th inst.

Peter Henderson's store is covered from cellar to roof with wire supports for moon flowers, which are being grown in boxes on the roof and will curtail the entire building.

There has been a generous revenue to florists from school commencements, bouquets and favors of a costly make-up are ordered for graduates, for if there is one thing a school-girl will have it is flowers.

Robert C. Owens, for eleven years an employe of Jacob G. Bebus, the Broadway florist, committed suicide May 29. For a long time he has been suffering at intervals from severe neuralgic pains in his head, and the act was probably committed during one of these paroxysms of pain.

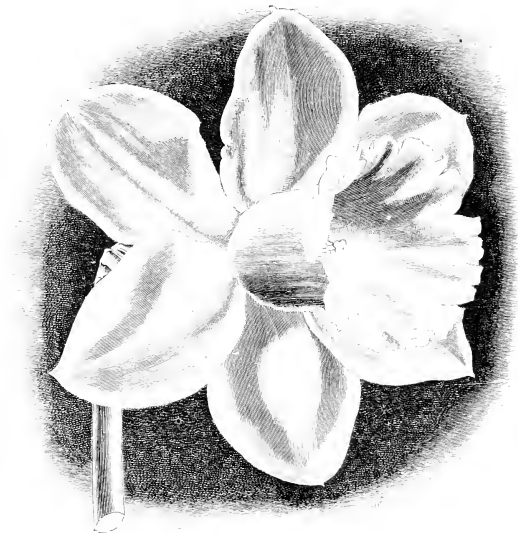
The last week in May and first in June have been lucrative ones with our florists. Weddings have been numerous and decorations elaborate. In this city selected flowers always bring a good price. In fact, people are ready to pay more at this time when the market is glutted with inferior bloom.

Some of our florists are making themselves popular by sending flowers to the Flower Mission. Choice bloom is highly appreciated by the ladies of the mission, who reserve it to send to hospitals where the patients are of a class to appreciate it. Most of the flowers forwarded to the mission are from country gardens, and there is considerable rubbish among contents of boxes.

JANESVILLE, WIS. Memorial day trade was very good. A great many pot plants were sold; I think more than usual. The flower trade was mostly bouquets and loose bunches. Walter Holmes is preparing to build an additional house, 20 x 35.

Narcissus Glory of Leyden.

Our illustration of this new narcissus was taken from the specimens exhibited at May 10th of the meeting of the Royal Hort. society. This flower has Emperor as one of its parents, and, as will be observed, takes much after it in form, and its color is very near that of Emperor, but is perhaps a shade lighter. The real value of this latest addition to the bicolor section, however, consists of the great size of the flower, an idea of which may be gathered from the figure. This variety was exhibited on the above-named occasion by Messrs. Bar & Son, who obtained a first-class certificate for it. The raiser is Mr. De Graaf, of Leyden. *Gardener's Chronicle*



NARCISUS GLORY OF LEYDEN

The Tulip.

Haarlem, Holland, which in the height of the tulip mania was the metropolis of the tulip bulb trade is still the home of the bulb growers. In April and May the suburbs for miles around are all aglow with color. Whole fields of hyacinths and tulips in a bewildering variety of colors may be seen to the south and west of the town, and everywhere the conversation is in regard to the probable crop of bulbs for the season.

Every one has heard of the "Semper Augustus," which was sold two and a half centuries ago for 15,000 florins, of the "Admiral Eikehuizen," which brought 5,000, of the "Admiral Lieken-shock," valued at 4,000, of the English tourist who had to pay the latter sum for an "Admiral von der Eyck," which he had thoughtlessly peeled with his pen-knife, or of the sailor who ate with his raw herring a bulb worth ten years of his earnings, under the idea that it was an onion, and "a rather poor one at that." Those days are past. It is questionable if many florists would know a "Semper Augustus" or an "Admiral Lieken-shock" if they saw it. All the tulips sold in the Netherlands do not bring a fourth of the 10,000,000 guilders which a single Dutch town in those days cleared by one year's sale, and a speculator would require to make a very close "corner" in bulbs before he could hope to net the 60,000 florins which the Amsterdam speculator won by his ventures in the course of four months. However, the taste has not quite gone out of Holland. A Dutchman will give a better price for a tulip than any other

person, and the wealthy merchant of Rotterdam or Utrecht still shows his plots to a visitor with the same pride that men of more conventional tastes exhibit their horses or their pictures.

But the tulip mania died hard. As late as 1800, it is said that 15 guineas were given for a "Don Quevedo," and as late as 1835 a single "Fannie Kemble" brought at a London auction £75, while a Chelsea nurseryman priced another at as high as 300 guineas, though whether he sold it is not mentioned. To the florist of to-day who buys his tulips at from \$10 to \$20 a thousand, the fabulous prices named seemed wonderful indeed. H.

BROOKLYN, N. Y.—A florist named Dennis Phillips recently called at the charities office and told a curious story to the clerk: He had been an inmate of the Flatbush asylum, where he was sent a year ago, after having been arrested for attempted suicide. He had followed the occupation of florist in Dutch Kills, Queens county, having there property valued at \$5,000 against which a mortgage was held for \$300. About July, 1886, Phillips was released, as cured, and received, he alleges, \$750 from one J. Rufus Terry, in payment for his property. He then went to France, and on his return to this country became more and more convinced that he had been swindled in the sale of his establishment in Dutch Kills. He declares that he has no recollection whatever of having given the deed, a copy of which he now holds. He accuses the holder of the deed of conspiring with the holder of the mortgage against his property to defraud him.

The : Picturesque

B. AND O.

Carried the Western Delegates to the Seedsmen's Convention. Remember the

BEAUTIFUL SCENERY

on this line, and take it on your Chicago trip next August.

**Florist's Letters**

Patent applied for. These letters are made of the best immortelles, wired on wood or metal frames with holes to insert toothpicks.

Prices on Wood Frames:

2-in. Purple... Per 100 \$3.00
Less than 100, 3c.

2½-in. Purple... Per 100 \$4.00
Send for sample. Postage 10c. per 100. Script lettering on Metal frames any word, 5c. per letter.

Designs, Monograms, etc.

W. C. KRICK,

1107 Broadway, Brooklyn,

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Agt. west of Pennsylvania

GREENHOUSE HEATING.

By A. B. POWELL.

Explains fully all the best systems of heating greenhouses by both hot water and low-pressure steam. Tells you the points to consider in selecting an apparatus. How to adjust same to various locations; gives the results of the latest scientific experiments. Shows how to compute the number of feet of pipe required for a given space; draft and other important matters. It is highly recommended by Mr. John Thorpe and others. Postpaid, 75c.

Sent on receipt of price. Address,
AMERICAN FLORIST,
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NO DRAWING REQUIRED.
NO HAND WORK NECESSARY.
SEND COPY. CHEAP. ARTISTIC.
FOR ESTIMATE. CROSSCUP & WEST ENG. CO.
201 FIFTH ST. PHILA-PA.

MARKET GARDENERS BUY NORTHERN GROWN SEEDS.

Wholesale List of Warranted Northern Seeds before buying elsewhere. We will pay you.

ALBERT DICKINSON,

Dealer in Timothy, Clover, Flax, Hungarian, Millet, Red Top, Blue Grass, Lawn Grass, Orchard Grass, Bird Seeds, &c.

Warehouses: 115, 117 & 119 Kinzie St. **P. O. CORN.**
104, 106, 108 & 110 Michigan St. **OP CORN.** 115 KINZIE ST.
Mention American Florist. 189, 200, 202 & 201 Market St. **CHICAGO, ILL.**

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OF

FLORISTS, NURSERYMEN AND SEEDSMEN

OF THE

UNITED STATES AND CANADA.

1887.

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EVERYTHING* FOR *FLORISTS.

Plants, Bulbs, Seeds and Requisites.

If you do not already receive our **Quarterly Wholesale Price List**, please send name and address and it will be regularly mailed.

PETER HENDERSON & CO.,
35 and 37 Cortlandt Street, - NEW YORK

Ives' Putty Machine.

Patented Jan. 8, 1887.

The best device ever invented for laying putty. With this you can make old leaky sash perfectly tight without removing the glass. It will do the work of five men in bedding glass.

Sent by Express on receipt of price, \$2.50.

J. H. IVES, DANBURY, CONN.

TUBEROSE BULBS.

We offer a first-class lot of

DOUBLE ITALIEN TUBEROSE BULBS.

suitable for forcing for winter bloom, at \$10.00 per 1000 Variegated foliage, early, single, first-class, at \$3.00 per 100; \$25.00 per 1000.

Second-class Pearls and Double Italian, 75 per cent will bloom first season, balance making splendid bulbs for next season's sales; pure, \$4.00 per 100. Address,

JOSEPH W. VESTAL,

LITTLE ROCK, ARK.

**TRY DREER'S****GARDEN SEEDS**

Plants, Bulbs, and Requisites. They are the best at the lowest prices. TRADE LIST issued quarterly mailed free.

HENRY A. DREER,

Philadelphia



Wm. Radam's Patent Process for Preserving Ferrible Goods is the most perfect process on earth. It kills the fungus, or germs in the articles treated, and fermentation is stopped. Any quantity up to a car load can be treated at one time. Patented September 28, 1886. Send for circulars to

Wm. Radam,

Austin, Tex.

NEW COLEUS,

HARRY HAROLD and the MIKADO.

They make elegant exhibition plants. They out-sell any Coleus ten to one. We guarantee them first-class. The pair by mail, 25 cents; either alone, 15 cents.

THOS. G. HAROLD,

KINGSTON, Somerset Co., MD.

*** * PELARGONIUMS. * ***

30 named varieties 2½ in. pots... Per 100 \$8.00
Geraniums, collection 30 varieties... 4.00
Fuchsias, collection 30 varieties... 4.00
Verbenas, collection 30 varieties... 2.50
Roses, Peric, Niphetos, Nemeros, Bou-Sheue, etc.
2½ in. pots... 4.00

SEND FOR TRADE LIST.

HENRY G. HIGLEY,

Cedar Rapids, Iowa.

100,000 VERBENAS

Good strong plants, out of 2½ in. pots. All perfectly healthy and as vigorous as seedling.

NO RUST OR MILDW.

30th choicest named varieties. Price \$2.50 per 100; \$20.00 per 1000.

J. L. DILLON, Bloomsburg, Pa.

Mention American Florist.

Verbenas, Pansies, Coleus.

VERBENAS, from pots... 35.00 per 1000
COLEUS... 25.00 " 1000
PANSIES... 3.00 " 100

Wm. Desmond,

KEWANEE, Henry Co., ILL.

FUCHSIAS

Sturm King

The finest fuchsia ever produced. Extra for retailing, early to have an immense run in 1888. Free by express after May 20th; 12, \$1.00; 25, \$1.75; 50, \$3.25; 100, \$6.00. If by mail, 30c. per dozen, 40c. per 100 for postage. Carnation, Century, extra, \$3.00 per 100. Verbenas, finest named sorts, \$5.00 per 100.

ELLIS BROS.,

KEENE, N. H.

VERBENAS.

PINK STOCK READY FOR IMMEDIATE SALE.

Mammillo set... Per 1000 \$25.00
General collection... 20.00
Colors, fine collection... 5.00 50.00
Centaurias, fine plants... 4.00 50.00
Fuchsias, fine variety... 4.00 20.00
Lantanas... 3.00 50.00

List of Roses for forcing on application. Also list of Surplus Stock on application.

I. C. WOOD & BRO.,

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CARNATIONS.

SMALL PLANTS and ROOTED CUTTINGS

Flowers 20 cents per hundred.

SMILAX ALL SUMMER.

THOS. F. SEAL,

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No Carnation Grower should be without this book. The only standard work in Europe or America, and is recognized as authority on this important plant. Price, \$1.50. Table of Contents free

LORA L. LAMBORN,

Box 792. Alliance, Ohio.

FOR SALE.**THE CUTS**

USED IN ILLUSTRATING THIS PAPER.

Write to prices on any which you have seen in previous issues and would like.

AMERICAN FLORIST CO.

CHICAGO.

From the Gardeners' Chronicle.

CALCEONEMA ALBUM.—This very pretty evergreen shrub is used at the Cape in bouquets, in the same manner as adiantums are ordinarily used. The scent is pleasant and the foliage outlasts that of ferns tenfold. The plant is raised from seed.

CINERARIAS.—The usual method of propagating cinerarias is from seed, but if it is desired to perpetuate any particularly desirable kind, it may be done by propagating from offsets. As the plants go out of flower about the end of April, cut off the flower stems, and place the plants in a cool house near the glass; or if danger of frost is over, a cold frame will do as well as anywhere. Growth will soon be produced from the base of the stems, and during the month of June they may be taken off with a portion of roots attached, each offset to be planted in a small pot, and the whole of them must be placed in a close frame or hand-glass until roots have formed in the potting soil, when they must gradually be inured to more air and light. After being well established they must be potted on and treated exactly like the seedlings.

SELAGINELLAS.—Those of trailing habit, such as *S. cesia*, are indispensable for draping over the sides of silver epergues, or to be used in a cut state to mix with cut flowers in centre glasses, etc., while the compact growers are equally invaluable for covering the surfaces of vases containing table plants. *S. denticulata*, *S. variegata*, *S. Poulterii*, *S. Emiliana*, *S. Mertensii*, *S. M. variegata*, *S. apoda* and *S. cesia* are amongst those most suitable for dinner-table decoration. *S. apoda* needs a warm place in which to grow, and requires frequent replanting to keep it from dying out.

SURPLUS STOCK OF CARNATION

ROOTED CUTTINGS in sand, of large, healthy plants.
Gracie Wilder and Century..... PER 100 \$1.50
Chester Pride, Edwardsii and De Graw, Lady Emma and Peter Henderson..... 1.25
King of the Crimson, Snowdon and Brussels..... 1.00
 Cash must accompany each order.
 This advertisement will appear but once.
ISAAC LARKIN, Tockenhamon, Chester co., Pa.

BEERMORST & CO.,

SASSENHEIM, (near Haarlem) HOLLAND
 GROWERS OF

**HYACINTHS, TULIPS,
 CROCUS, NARCISSUS,
 AND ALL OTHER DUTCH BULBS.**
 Catalogue FREE on application.

Wm. S. Ewell & Son,

—{FLORISTS}—

Howard St., (Near Bird Street Station)
DORCHESTER, MASS.
 Boston Market.

Largest variety of—

PLANTS FOR THE GARDEN.

50,000 PANSY PLANTS,
 Best variety, in flower, \$3.00 per hundred.

30,000 GERANIUMS,
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We have *Caladium Esculentum* from 5 to 7-in. pots, 1 ft. to 2 ft. high, \$2 to \$4 per doz., 25 to 50 cents each.

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Inform the trade that his wholesale catalogue has been mailed, intending purchasers who have not received it, should write for one before ordering elsewhere.

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Hyacinths, line mixed, per 100, \$3.00.

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Catalogues free on application. Lowest prices and
best quality.

Trouble at Both Ends.

The accompanying sketch is from life, and we doubt not that it illustrates an incident in the experience of nearly every man in the retail plant trade. It also thoroughly illustrates the florist's business as it is, and not as it is occasionally pictured by the daily press; the slightest neglect or oversight at one end producing



FIG. 1. TROUBLE AT BOTH ENDS.

consequences at the other fully as disastrous as the incident shown in the sketch. The successful man keeps a firm grip on both ends and takes no chances.

AZALEA MOELLIS.—This azalea is very valuable for forcing purposes. Plants of it potted up in summer and kept out of doors until hard frost sets in force better than plants otherwise treated, and the flowers are more persistent than in the case of plants newly imported from France and Belgium. This is a fact worth knowing; and as it is found by experience that the varieties of *A. mollis* are not so well adapted for outdoor culture—except under very favorable circumstances—as for greenhouse work, and seeing they are easily managed, they should be extensively grown where there is convenience for forcing. The flowers are of various beautiful shades of color, and all very showy, and the blossoms are borne in fine trusses, which are often equal in size to those of the rhododendron. Then the plants are of bushy growth, deciduous, and perfectly hardy. The following are some of the best varieties: Alphonse Lavallee, bright orange, shaded with scarlet, and spotted with citron; Baron E. de Rothschild, dark red, spotted with yellow; Chevalier de Reali, straw-white, merging into creamy yellow; Comte de Gomer, lovely rose, spotted with orange; Isabella Van Houtte, dark mauve, spotted with orange; Consol Pecher, rose spotted with dark orange; Dr. Leon Vignes, white, shaded with mauve, and spotted with orange; and scarlet La Grande, orange scarlet, the best of all in color. It should be stated that the spots are confined to the upper segments of the flowers. From some nurserymen seedlings of Comte de Gomer, Consol Pecher, Isabella Van Houtte, and one or two other distinct varieties can be had, and if these have been transplanted twice, and are ten inches or twelve inches in height and bushy, they will be found admirable for potting-up for forcing purposes. As a matter of course, seedlings can be bought at a much cheaper rate than the propagated named varieties. R. D.

London Garden.

PORTLAND CEMENT. This material may be used for repairing the woodwork of luthouses and all kinds of structures where heat and moisture cause decay in wood. The lower part of the door jambs and the sills soon become decayed and dilapidated, and I find by experience that these can best be repaired and rendered

durable with the above cement. Take one and one-half yards of Portland cement, mix well together, and make soft like mortar, then remove all the decayed parts of the sills or uprights of all parts in the woodwork, put a few nails into the old wood to hold on the cement, then place a straightedge in front of the dilapidated parts, and fill all the holes up with the cement; bevel the surface of a sill so that water can run off. I have used cement for repairing wood for fourteen years, and have found from experience that the treatment will preserve wood for many years although partly decayed.—*W. S. in Gardeners' Chronicle.*

CHRYSAANTHEMUM SEUR MELANIE.—Those who have not grown this variety will do well to give it a trial during the coming season; either in the form of large or small plants it is almost unequalled for freedom of flowering. It is pure white, and an advantage it possesses over other kinds consists in the manner in which its flowers all open simultaneously, a grand property where cut flowers are wanted, as in many instances side buds must be sacrificed, the center one generally opening some little time before the others. Capital plants about two feet high of this variety can be grown in 7-inch pots, with from six to ten spikes, each being furnished over a foot in length with blooms. Such plants are preferable to others more bushy in character. Bushy plants take up more room, and are not nearly so useful. Nothing can be better for filling jardinières at the foot of large mirrors than plants grown like those just described. Any time during February is suitable for taking cuttings. Strike them in the usual way, either singly in small pots or three or four in large ones. As soon as rooted, pinch out the point of each plant and place it at once in a cold frame, giving as much air as possible to keep all sturdy. If large plants are wanted, top the shoots once or twice more, pot on as required into the sized pots named, carefully and freely watering during the hot days in summer, as a loss in foliage disfigures the plants. No dis-budding should be done; on the contrary, allow all on each stem to develop, as on that the peculiar beauty of this variety depends. E. MOLYNEUX.

London Garden.

SALVIA TRICOLOR.—This handsome little foliage plant is used with fine effect as a border in carpet bedding in some of the Chicago parks, and if it could be propagated more readily, it would be largely used. The plants do well after they start, and are very effective when bedded.

AGENTS Wanted to sell **GENERAL NURSERY STOCK** for one of the oldest and best known firms in the country. Honorable and steady employment, at good wages, for capable, energetic men. Apply at once. Address—**DRAWER 785, Rochester, N. Y.**

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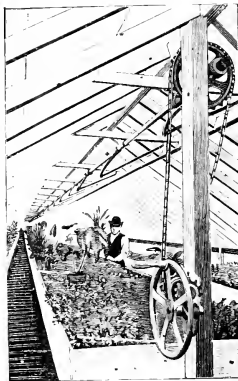
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No Liability to Break or get out of order.

Simple in construction, perfect in operation.

Write for prices and circulars to

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Being the representatives in the U. S. for Messrs.

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BOOK OF PLANS

For
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With many it is difficult task to lay out a carpet bed, or fancy design on the lawn, and perhaps more difficult to choose the proper plants to harmonize so as to give the best effects. The object of these drawings is to assist gardeners and amateurs, and to enable them to choose the proper plants for their work. It is expected that this book will supply a long felt want, as it is the first and only publication entirely devoted to Fancy Flower Bed Designs.
Thus, our SHOW-BOOK, consists of over 100 designs, finely engraved, on good paper, nicely bound, sent free of charge to any address on receipt of Price, 3c.
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Length of Barrel 18 in., Diameter 1 1/2 in.



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ROBE T. DEARIN & CO.,
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Mention American Florist.

New Ornamental Trees.

One of the finest trees I saw in Europe last summer was *Acer Guiniala*, a northern Asiatic species, nearly allied to the admirable Japanese maples, *A. polymorphum* and its varieties that are so beautiful and popular on the Atlantic coast, but unfortunately too tender in leaf to stand our hot, scorching western suns in summer, and our cold, trying winters.

Acer Guiniala has the same delicate, tinted and finely cut foliage of the Japanese maples, and is also extremely hardy. It is a small-sized, round-headed, beautiful little tree, that will be a general favorite when known.

Another superb, majestic tree is the variegated tulip tree (*Liriodendron tulipifera foliis variegatus*), possessing all the statelyness of the common tulip tree, with each leaf finely bordered with a silver band in summer, which changes to golden toward autumn. This tree being so difficult to graft, will maintain a fair price for the next fifty years.

Another—about the newest ornamental tree in France—is the tricolor beech (*Fagus purpurea tricolor*), a purple-leaved beech, with its leaves finely bordered with a bright rose-colored band. This is very constant, and very striking. The price is also very striking to a poor man—only \$2.00 for a little tree a foot high.

The method of propagating beeches, birches and some other trees in the French nurseries is a novel one. If you are going to propagate cut-leaf weeping birch, first get a good-sized bushy tree, ten or fifteen feet high—as bushy as possible. Then pot seedlings of common birch in 3½-inch pots, and grow them a year, to become well established. Then loosen some of the roots of the large tree, so that it can be bent over into nearly a horizontal position, and secured there, without preventing its continued growth. Then bring your potted plants and graft by approach (inarch) until all the branches near the ground have been grafted into a potted seedling. Then build a scaffold three feet from the ground, and another six feet, and set on these other potted plants, and graft these in same manner, until sometimes 1,000 plants are grafted into one tree. The grafts are simply tied with soft string, without wax. They seem to unite quickly, and with very few failures. As soon as well united, the graft is cut loose from the mother tree, and it returned to its upright position until it regains its vigor, and is ready for another attack.

Dunreith, Ind. E. Y. TEAS.

PINKS.—Mr. D. McGillivray, Brattleboro, Vt., sends a few blooms of a seedling pink of the picotee class, of a very peculiar color, which might be described as a satiny lavender striped irregularly with reddish pink. The ground color is handsome when closely examined but of a nondescript appearance at a short distance.

FOR SALE.

25,000 Azalea Indica,
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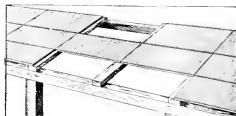
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THEY ARE AS
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They will last a lifetime and you will not be troubled with fungus from rotting wood. They transmit bottom heat better than wood.

Price, \$22.50 for 1,000 sq. feet of surface.

SLATES 1-3 IN. THICK, 20, 22, 24 INCHES LONG.

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Lycopodium in its season at lowest prices per 100 or doz.

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Messrs. I. C. Wood & Bro., Fishkill, N. Y., have used "Grape Dust" to considerable extent. Mr. Wood says:

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Every Wednesday & Saturday at 10 a. m.

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Any one wishing to consign plants to our sales can send by freight and notify us. We will take proper care of them. **RATES OF COMMISSION** 12½ per cent. for selling and three per cent. for advertising. References, any of the Florists about Boston.

N. F. MCCARTHY & CO., AUCTIONEERS.

Auction Room, Corner Pearl & Purchase Sts.

63 Bromfield St., BOSTON, MASS.

Cincinnati.

A great bed of water lilies made a simple but beautiful table decoration at a recent dinner.

The decoration of a dinner table at the Queen City club was a floral vase, made up entirely of roses.

Frank Huntsman made a very pretty basket for a "sweet girl graduate," of simple blue corn flowers and lilies. It was odd, and took well.

There is some talk of a chrysanthemum show to be given here this fall. B. P. Critchell and Harry Sunderbruch are leading spirits in the enterprise.

At one of the June weddings the bridesmaids carried huge bouquets each containing four dozen full-blown La France roses. They were nearly as big as the maids themselves.

A very odd decoration made for a grave up in the state was a chain of flowers twenty-one feet in length; it was stretched about the mound. The links were of mixed flowers. Across the grave the name of the dead was worked in flowers, and at the foot lay an open book of white blossoms.

A mammoth locomotive was the design made up by the Floral Exchange for a dead engineer's bier. It was over four feet in length. The boiler was of white Snow pinks and Niphetos roses. The cab of Perles and candytuft; the tender of lilies and roses, and the smoke-stack of roses.

A hammock entirely filled with roses and paeonies swung from the organ loft of a Walnut Hills church during a wedding this week. Instead of having a professional do the work, the bride's friends volunteered in the labor of love and purchased flowers from every florist in town. The result was they had so many they didn't know what to do with them. Hence the hammock was brought into prominence. REN MCFORD, JR.

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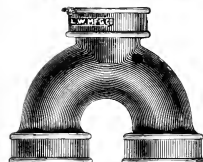
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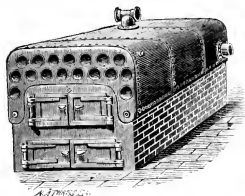
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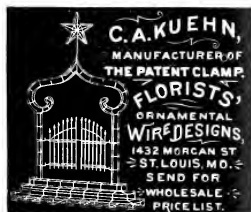
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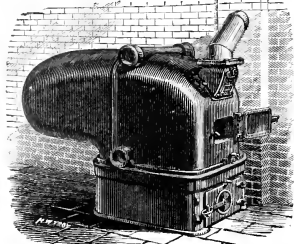
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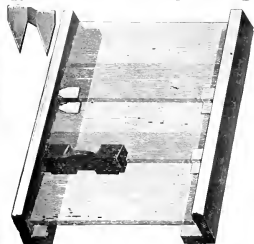
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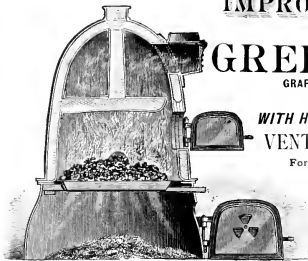
All mail orders and correspondence must be addressed to Milwaukee office.



Index to Advertisers.

Advertising Rates, etc.	419
Allen, W. S.	419
American Florist Co.	419
Baker, F. A.	419
Baltimore & Ohio R.R.	421
Bayersdorfer, M. M.	419
Bear, Albert	419
Benz, Albert	419
Bischoff, J. C.	419
Bissell, Joseph E.	419
Bosson, James L.	419
Bracke, J. C.	419
Bragg, L. K.	419
Breitmeyer, J. S.	419
Bridgman, Herman	419
Burton, Arthur M.	419
Clark Bros.	419
Coles, W. W.	419
Crossman & West	419
Croft, C. W.	419
Dalh, C. W. & Co.	419
Denkin, R. D. & Co.	419
Denton, Wm.	419
De Vries, J. A.	419
Dickson, A. M.	419
Dickson, Alex. & Son	419
Dillon, J. L.	419
Dodge & Connel	419
Drew, Henry	419
Egan, H. W. & Co.	419
Elliot, B. A. & Co.	419
Ellis, Bros.	419
Ewell, W. S. & Son	419
Excelsior Machine Works	419
Fink & Co.	419
Forest Glen Farm	419
Garfield Park Rose Co.	419
Gassner, J. M.	419
Giddings, A.	419
Girthing, Jas.	419
Groening, Henry J.	419
Hales, H. W.	419
Hall, C. & Thorpe	419
Hannum & Hunter	419
Hammont's Sign Shop	419
Harold, Thos.	419
Heid, John G.	419
Heinz, Chas.	419
Henderson, Peter	419
Hennecke, C. & Co.	419
Herr, Albert	419
Hugley, Henry G.	419
Hill & Co.	419
Hilborn, W. T.	419
Hitchings & Co.	419
Hosker, H. M.	419
Hulstebach Bros.	419
Jess, J. H.	419
Jensen, Ed.	419
Jewett, Z. K.	419
Jewett, C. H.	419
Kaibler, J.	419

Keyes, John	419
King, James	419
Kirk, E.	419
Krafft, E.	419
Kuehn, C. A.	419
Launier, John L.	419
La Roche & Stahl	419
Larkin, Isaac	419
Lockland Lumber Co.	419
McAllister, P. R.	419
McCarthy, N. F.	419
McFarland, J. H.	419
May, J. N.	419
Michel Plant & Seed Co.	419
Miller & Hunt	419
Momon, Rott	419
Mooy Polman	419
Mott, J. L. Iron Works	419
Mullen, Geo.	419
Murphy, John A.	419
Neale, W. C. & Bro.	419
Nelson, John J.	419
Perkins, J. N.	419
Plenty, Joseph	419
Prior, Charles S.	419
Reed & Keller	419
Rice & Whitacre	419
Rohrer, Aug. & Sons	419
Ross & Milling	419
Rupp, Henry & Sons	419
Salzer, J. A.	419
Schmidt, Aug.	419
Schultz Bros.	419
Schultz, Jacob	419
Seckley, John A.	419
Soat, Thos. F.	419
Soezers Bros.	419
Soezers, C. C.	419
Stehr & Wadley	419
Situations, Wants etc.	419
Smith, Chas. & Son	419
Smith, Wm. C.	419
Steffens, N.	419
Stewart, Wm. J.	419
Strains, C. & Co.	419
Taylor, John H.	419
Thompson, Mrs. J. S. R.	419
Ude, J. W.	419
Vander Schoot, R. & Son	419
Vander Schoot, R. & Son	419
Van Lochem, J. J.	419
Vaughan, J. H.	419
Vestal, Joseph W.	419
Ware, Thos.	419
Weathered, Thos. W.	419
Welch Bros.	419
Whitlin Pottery Co.	419
Wilks, M. G.	419
Wilson, Wm. C.	419
Wolf, L. M. Co.	419
Wood, L. L. & Bro.	419
Young, Thos. Jr. & Co.	419



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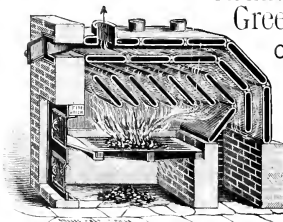
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THE AMERICAN FLORIST



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Vol. II.

CHICAGO AND NEW YORK, JULY 1, 1887.

No. 46.

THE AMERICAN FLORIST

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EASTERN OFFICE,
Room 81, Vanderbilt Building, New York.

All communications should be addressed to the
general office at Chicago.

SOCIETY OF AMERICAN FLORISTS.—Robert
Craig, Philadelphia, Pres.; J. C. Vaughan, V.
Pres.; M. A. Hunt, Treas.; Edwin Lonsdale,
Chestnut Hill, Philadelphia, Sec'y. The third
annual meeting at Chicago, August 16, 17 and
18, 1887.

The Coming Meeting.

I have to-day returned from a three days' trip to New York and vicinity. There is a very general disposition on the part of the florists of that section to go to the convention at Chicago in August. Nearly every one I met had made up his mind to "go off." It is evident that the New Yorkers are awake and appreciate the benefits that may be derived from attendance at that meeting. I thought that 600 members present in Philadelphia last summer was a good showing, but feel sure that at least 1,000 members of the society will assemble in Chicago. Many of the eastern men have never been there, and as, contrary to the general impression formed since the passage of the inter-state commerce act, the prospect for getting favorable railroad rates is good, it would be a great mistake for any to neglect the opportunity. The Seedsmen's association, now in session in Philadelphia, with less than fifty members in attendance, as well as the nurserymen meeting at Chicago this week, have obtained a reduction to a rate and a third, which was very difficult for the florists to get last year, although their attendance was so large.

ROBT. CRAIG.

SUBSCRIPTIONS for the AMERICAN FLORIST may be left with any of the following:

Baltimore,
R. J. Haliday.
Boston, W. J. Stewart.
Buffalo, Daniel B. Long.
Cincinnati,
Harry Sanderbruch.
Cleveland, O.
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New York, W. S. Allen.
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Pittsburgh,
J. R. & A. Murdoch.
St. Louis, Michel Plant
& Seed Co.
San Francisco,
Thos. A. Cox & Co.
Toronto, Ont.,
J. A. Summers.
Washington, D. C.,
L. Schmid & Sons.

The Nurserymen's Convention.

The twelfth annual meeting of the Nurserymen's association opened in Chicago June 15 and continued three days. The opening address by President C. L. Watrous was a well-prepared paper containing many valuable and practical hints. The education of the tree agent, or the selection of salesmen who understood the stock they were selling and could give reliable information to customers in regard to same, was a point regarded as of vital importance to the trade.

A valuable paper from Prof. Fernow, of New York, on the objects and workings of seed control stations, was read and well received. Prof. Fernow strongly emphasized the necessity of carefully selecting seeds and to plant none but those of a high standard, reminding hearers that not only the present crop but future ones were affected by the strength of the original seed. He also dwelt with force on the necessity for an official analysis of all seed placed on the market by growers, and described the methods employed in some European countries where this was accomplished by the establishment of "seed control stations."

A most excellent paper by Mr. Robert Douglas, of Waukegan, Ill., revealed the fact that in the state of Kansas 147,340 acres had already been planted to forest trees, and that the number of acres planted in the state of Nebraska outnumbered the first-named state two to one. He claimed that while Europeans were endeavoring to teach us the principles of forestry, we were way ahead of them in practically solving the problem, and he believed that there was no cause for fear that the forests would ever become extinct in this country. He related how he had planted for a western railroad company two large plantations at an expense of only \$30 an acre, planting 2,500 young trees on each acre. In the discussion on the paper the necessity of guards against fires was urged, and it was recommended that work should be done toward securing laws which should make it a finable offense for railroads to run a locomotive without a screen over its smoke-stack to prevent fires from sparks. It was also stated that in two plantations in Kansas there were planted three millions of trees. When trees are planted thickly, pruning is found unnecessary, as they prune themselves by losing the lower branches from lack of sunlight, and fall off without leaving a scar.

A committee of three was appointed to memorialize the various railroad traffic associations, protesting against the present excessive freight rates charged on nursery stock, and endeavor to have it classed as third-class freight. The sum of \$300 was appropriated to defray the expenses of the committee, as it was in-

structed to personally appear before the meetings of the freight traffic managers and present the arguments of the society.

Officers were elected for the ensuing year as follows: President, C. L. Watrous, of Iowa; Vice-president, L. G. Bragg, of Michigan; Secretary, D. Whitmot Scott, of Illinois; and Treasurer, A. R. Whitney, of Illinois. Executive committee—S. D. Willard, of New York; Leo Welz, of Ohio, and S. M. Emery, of Minnesota.

The question of reduced postage was again referred to a committee for another year.

In view of the fact that both the florists and seedsmen of the country had branched out and formed separate organizations of their own, the name of the society was changed from its old title (which included all three trades) to simply the "American Nurserymen's Association."

"Landscape Art," by the Hon. S. B. Parsons, of Flushing, N. Y., gave an outline of what the relationship of the nurseryman to landscape art should be. He lamented the lack of familiarity of most nurserymen with the finer grades of ornamental nursery stock and with the principles of landscape gardening. In planting trees none should be planted nearer than 100 feet of the dwelling, as shutting the sun from out our homes is deleterious to health. The circle is the form of beauty, and planting should be done in variations of the same. The great stumbling block over which most inexperienced planters fall is the removal of all irregularities in the plot to be planted. If you have an irregular piece of ground, beautify the same in as natural a manner as possible without wasting labor to reduce it to a flat, even surface devoid of beauty.

The question of insuring nursery stock against hail-storms was considerably discussed, but was not placed before the meeting in shape to be acted upon.

It was decided to hold the next meeting in Detroit, Mich.

A motion to hereafter meet biennially instead of annually excited considerable discussion, and was finally voted down. A motion to change time of meeting from June to September was also lost.

The question as to "how nurserymen can best purchase their tools," was aptly answered by a delegate: "Purchase where you can get them the cheapest for cash." It is presumed that the proponent of the question is satisfied.

NOTES.

About 250 members were present. See our complete list of exhibits at the meeting.

Anybody else got a new apple to bring before the society?

The hottest weather Chicago has had this year created a lively demand for fans.

What the delegate from Oregon don't know about seed corn and sows isn't worth mentioning.

The Vauclusean sage can tell a good story, as well as instruct in the practical workings of forest tree planting.

The statement that nurserymen are deficient in "cheek" was indignantly denied by a delegate who seemed to know where he stood.

Mr. F. Fell, representing Thos. S. Ware, Tottenham, London, and Mr. R. Carrington, representing Richard Smith & Co., Worcester, England, were present. The claim of one member in regard to hail that "the Lord took care of His own," citing the immunity of "the good eastern nurserymen," was somewhat hampered by another member who brought out the fact that a very severe hail-storm had lately done much damage among the said "good eastern men."

EXHIBITS.

S. F. Leonard, Chicago, new wheel hoe.

Bardwell & Haviland, Ft. Dodge, Ia., tongue grafting machine.

S. A. Whitney, Franklin Grove, Ill., tree digger.

J. Horace McFarland, specimens of printing for the trade.

Rose Mfg. Co., New York, tobacco soap.

Stecher Lithographic Co., Rochester, N. Y., specimens of lithographs.

David Hill, Dundee, Ill., young evergreens.

J. C. Vaughan, Chicago, tools, cultivators and nurserymen's supplies.

J. Jenkins, Winona, O., young evergreens.

F. B. Abbott, Chicago, transplanting tool for shrubs and small trees.

Nichols & Lorton, Davenport, Ia., specimens fruit trees.

Oakland Nursery Co., Forgy, O., specimens fruit trees.

W. F. Heikes, Huntsville, Ala., fruit trees and shrubs from cold storage. At this late date not a bud had started, though plump.

Jenkins, McGuire & Co., Baltimore, Md., packing crate for fruit.

Coe & Converse, Fort Atkinson, Wis., sprays of Spy's early raspberry, and Stone's hardy blackberry.

Dayton Star Nurseries, Dayton, O., the Feigly tree digger.

B. C. Warfield, Sandoval, Ill., strawberry Warfield's No. 2.

D. M. McCullough, Troy, O., preserved fruits.

Washington Maynard, Assumption, Ill., root graft cutter.

Jas. B. Wild & Bros., Sarcoxie, Mo., Teas weeping Russian mulberry and other trees.

Sandwich Enterprise Co., Sandwich, Ill., wind-mill, force pump and new horse cultivator with attachments.

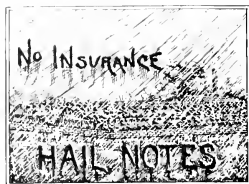
Sandwich Mfg. Co., Sandwich, Ill., combination hand-cart and barrel carrier.

Jamesville Machine Co., Jamesville, Wis., disk pulverizer.

Z. K. Jewett, Sparta, Wis., sphagnum moss.

F. W. London, Jamesville, Wis., a large and varied exhibit of strawberry fruit, including the Jessie.

Mr. GEORGE JACKMAN, of Woking, England, died May 29, at the age of 90 years. His father was the originator of the well known Clematis Jackmanii as well as many other valuable hybrid clematises.



Hail Insurance.

Now that the organization is an accomplished fact, and the machinery is ready to run, there should be a long list of applicants for membership in the new enterprise at once. Our very able and efficient secretary, Mr. John G. Esler, has accomplished wonders in the way of getting matters into legal shape for the transaction of business by the Hail association; we are indebted to him for the present auspicious beginning. The plan is feasible—it is practical—and if those who have been wishing for such a method of insurance will now send in their applications, the success of the undertaking is at once assured. When the membership roll contains 300 names we can command between \$2,500 and \$3,000, which will at once place the new organization in excellent shape for business; this is allowing for an average of \$10 from applicants.

The present organization has fought its way for a right to exist in spite of nonsensical hindrances, sectional opposition, and those who continually cry, "It can't be made to work." Some parties designate the scheme as an "old chestnut," but indications point to a lively tree from the old germ. Of course, insurance is not needed in localities specially protected by Divine Providence; but where everything falls that comes down, it is not a bad idea to seek a shelter from losses occasioned by no special fault of the party injured. They do say they had a reminder of what might be even in Jersey. We have heard of Jersey apple-jack, Jersey lightning and Jersey sweet potatoes, but Jersey hail—well, it's awful to think of such a thing; they really got a dose, but thanks, only a slight one, at Madison.

In answer to the objection of the Minnesota florists that it isn't worth while to insure unless one could cover losses on plants as well as glass, we might say half a loaf is better than none at all. Let the society get well on its feet, and then the larger subject of complete loss could be taken up; but prudence demands only losses on glass at present. When the time comes—and it will not be far distant

that the Society of American Florists will see its short-sightedness in not bravely and magnanimously adopting a child which is of nearer kinship to themselves than ought else. Yet they did put the little fellow on his own pins, so to speak, when they said we could go ahead. Many thanks to our good-hearted friends, Henry Siebrecht, John May, Peter Henderson, Robt. Craig and others for their munificence in contributing to our guarantee fund. We wish them immunity from hail forever—only we want them to go in for a portion of the good things set before them, say to the extent of 10,000 feet of insured glass.

We must each seek to further the interests of the society by getting members to insure, by insuring ourselves, and then

let us patiently abide the larger working, which we may confidently expect in the not far off future. Here is a field for the practice of a large-heartedness that will demonstrate the worth of a brotherhood in its widest and best sense. Many of the larger firms show a disposition to "trust to luck." Of course they can afford to do this, perhaps, but business methods would prompt to a different course in the case of life or fire.

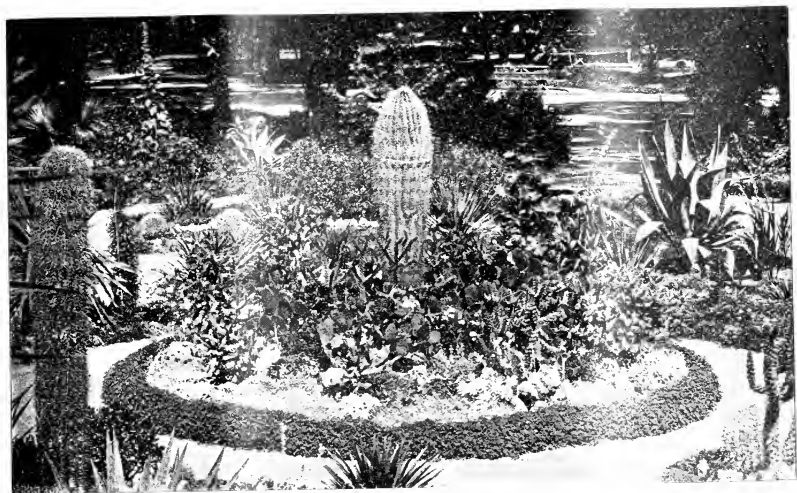
In a short tour made among the florists of my own section, they all without exception expressed a willingness to go in on the plan presented, and many of this state (Indiana) have done so. We hope for large numbers at and before the meeting of the S. A. F. in Chicago. We understand the hail society is to have one evening for a report and a presentation of its claims. We trust we may talk hail and hail insurance, but we don't think we need a "Hail Columbia" time as in former years. E. G. HILL.

JENKINETTE, LA.—This section of the country was devastated by a heavy and destructive hail-storm June 13. The storm extended for about 100 miles along the coast of the Gulf of Mexico, and did much damage.

THE HAIL BELT.—The location of the hail belt is becoming more and more difficult. We hear of severe storms doing great damage around London and Paris as well as in this country and now in Roumania. In the last named country the cable tells us that many lives were lost, the huge hailstones demolishing ordinary habitations.

WASHINGTON, D. C.—The floral offerings this year on Decoration day were not so profuse here as usual, owing in part, no doubt, to the closing of the public schools for the two previous days, the children of these schools being largely depended upon for floral supplies on these occasions. Nevertheless, there was an abundance of flowers and many elaborate floral designs, especially so for the occasion of the memorial services at the tomb of Gen. Logan. One of these—the offering of the U. S. Grant Post, G. A. R., Brooklyn, N. Y.—made to order by the florist Jackson, of this city, consisted of an upright shield on a base made of Paul Neyrons. The shield alone measured some three feet in length, with a width of two feet. Its border consisted of Marcehal Niel buds, the red stripes of Jacques and carnations, and the white stripes of Niphetos and carnations, while the blue field was made up of purple pansies, and for the stars separate petals of Hydrangea grandiflora did effective service. Surmounting and extending across the shield a scroll some four feet in length was appended, bearing the name of the donors. Above this was still another tablet of white carnations bearing in large letters of blue pansies the simple word, "Logan." From the base of the design to the ends of the scroll extended two large Cecus palms, which added materially to the effect of the whole. The smalls also furnished several elaborate designs, including a superb Rockford vase filled with choicest roses; and several other florists did themselves credit on this occasion. Commencements are now the order of the day, and florists are exceptionally busy in supplying the conventional horseshoes, ladders, crowns, baskets and bouquets.

CAMDEN, N. J. Charles W. Turnley has removed to 208 Federal street, where he has purchased.



GARDEN, HOTEL DEL MONTE.



VIEWS IN THE GROUND OF THE HOTEL DEL MONTE, MONTANA.



Odontoglossum Rossi.

A well-known species belonging to the *Leucoglossum* section of *odontoglossum*—comprising about a dozen species, all characterized by a large white lip—are mostly of dwarf growth, with clustered bulbs, and all natives of Mexico. The subject of the accompanying engraving is among the earliest of the *odontoglossum* discoveries, nearly fifty years having elapsed since Ross first introduced it.

The species and its varieties is distributed over an immense area on the plateaus of Mexico, and is found growing on tree stumps, rocks, or on the ground. In some localities it is so plentiful as to sometimes dam up the streams after a heavy storm. Its extreme floriferousness has rendered it a very popular orchid, and so largely has it been imported of late years that there is scarcely a plant house in which this pretty species cannot be found. Though it will be found very useful for many purposes to the florist, it cannot compare with the larger growing crispum and its congeners. I am told that it is grown in immense quantities by the market growers around London, and that it commands a ready sale in Covent Garden.

It is a very accommodating orchid, being found growing under cultivation with a greater variety of treatment than any other orchid. With us it is found to do best fastened to rafts of wool suspended horizontally to the roof. We use very little moss. It needs abundance of water in growing season, but should be kept comparatively dry all the winter. To flower it successfully, it must be placed in a very light, airy house, so that the bulbs may get thoroughly ripened. It needs no especial temperature in the summer, but let it take its chances of the weather. In winter a cool, dry house will suit them best.

There are a great many varieties of this pretty little species, the best known being the large form called *majus*; indeed this name is invariably added to the type nowadays, be the variety large or small. *Adspersum* is a very distinct variety, with primrose yellow flowers, sepals and petals spotted at base with chestnut brown and a red-streaked orange crest. *Ehrenbergii* is a smaller variety in which the sepals and base of petals are pale green spotted with brown. *Rubescens*—probably the best of all the varieties, having large, pale rose flowers densely spotted with reddish brown. *Wannerianum*—similar to *Ehrenbergii*, with base of flowers barred with reddish brown. *Virescens* has white flowers with green spots. *Humeannum* has yellow sepals barred with cinnamon red, and brown blotches at base of the white petals. The above are the most distinct forms, some of them being considered by many to be natural hybrids, but I do not think them sufficiently distinct to warrant a specific name.

F. GOLDRING.

Notes and Comments.

Apparently the greatest success of the season, as far as bedding plants are concerned, is our old friend, *Ipomoea Bonanox* or *noctiluca*, re-christened "Moon flower." Its sale this spring has been simply enormous, especially among amateur growers, to whom it is a novelty. In fact, it has been little known among

aware of the complete hardness of the plant. It is a most satisfactory climber in most places. It rarely fruits with us, though I have eaten fruit ripened on Long Island. It is perhaps more suited to Japanese than American palates; it strongly resembles a cucumber stuffed with cold sago pudding.

What sort of novelties are we to have among *chrysanthemums* next autumn?



ODONTOGLOSSUM ROSSI

florists, though it has been in cultivation nearly seventy years. However, people are beginning to recognize its virtue, and it is relieved from the undeserved obscurity in which it has languished for so long. Undoubtedly it is the most attractive of our annual climbers. One of our growers tells us it has proved a perennial with him, apparently an eccentric proceeding on the part of this plant, though it is, no doubt, perennial in the East Indies.

We see periodically in the English horticultural papers some reference to the virtues of *Akebia quinata*, usually stating the interesting fact that it is hardy in the latitude of London, if the roots are protected. This last statement is doubtless true, since with us the *Akebia* stood the winter unprotected when the mercury coquetted with twenty below zero. Our English friends do not seem

We want something very new, if it is to create any great furor. One of our great nurserymen has a number of new sorts just over from the Mikado's empire, varieties never seen out of Japan before, and they ought to give us something striking. However, their virtues are as yet unknown, so their fortunate possessor must watch them with the feeling of a speculator in lottery tickets. It would be impossible to improve on a good many of these flowers, but there are some shades yet lacking that would supply a want. One of these apparently unattainable luxuries is a big, bluffy Japanese variety of the same shade as a *La France* rose. Pinks we have in plenty, but not one exactly this shade. It would be a corsage flower to gladden the feminine heart, only I suppose we can't expect the growers to hint a flower to order just on our account.

So far this season, though interesting to the entomologist, has been exceedingly trying to growers, through the variety of insect pests. Eternal vigilance and unlimited poison are the only remedies, though a poison destructive to one pest will often appear a luxurious diet to another. And now one of our most respected agricultural contemporaries declares that this prevalence of destructive insects is entirely due to our bird-trimmed hats!

Some of our florists are going in largely for amaryllis. Last winter amaryllis, vallota and pancratium sold fairly well and were much admired. They are handsome and striking, and show up much better than finer flowers in decorative work. The pancratium is additionally attractive through its delicious odor. There are a good many of these plants which would be likely to take now, since we are permitted to exercise our taste among a greater assortment of flowers. There are some very pretty things among the funkias, in exquisitely delicate lavender shades, and the different varieties of hemerocallis are very showy.

How is it that we do not see more of the New Zealand flax (*Phormium tenax variegata*), used in bedding out? It is a very handsome thing when well grown; a large clump is most effective among sub-tropical plants. It is deeper and richer in its coloring than arundo or eulalia, and is not discouraged by a little hard usage.

Can any one tell me what plant is known in the vernacular as "Elephant's Ear?" I read somewhere of the fruit of "Elephant's Ear" being sold in the markets, and I want to know what in the name of Linnaeus this botanical mystery may be. Henderson, Paxton and Rhind fail to throw any light on the subject. I have a vague impression that I have heard Caladium esculentum called by this name, but its fruit is not eatable. The root is eaten, though it is not an article of diet one would hanker after; it tastes like an uncommonly poor potato, with an after suggestion of parsnips.

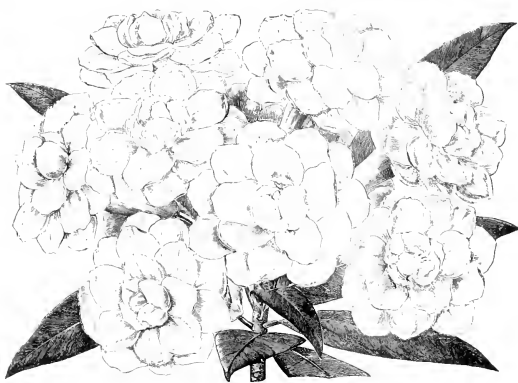
Apropos of caladiums, there is nothing better than a border of the fancy varieties in any shady place where few other things will do well. C. argyrites and a few others of the very tender sorts might not succeed, but as a rule they make a fine show all summer. In a very shaded location colors and the like never attain their full color, and one cannot expect anything from flowering plants, but caladiums and palms will make an extremely showy sub-tropical bed.

Some of our magazine writers have learned that there are actually feminine florists, so they are beginning to write very learnedly of the beauty and poetry of the occupation as a fresh field for women. We can point with a good deal of pride to some feminine ornaments of the profession, but I fear that any inexperienced woman who went into the business from a poetical standpoint would soon find her fond ideals badly wrecked.

EMILY LOUISE TRAPLIN.

Rhododendrons.

Of rhododendrons we have two large masses, including hundreds of specimens. These range in size from three to ten feet high, and in age from five to over twenty-five years. They consist of too seedlings, and the balance, including all the large plants, of "worked" named sorts. We also have a good many of the dwarf, small-leaved rhododendrons, likewise sev-



RHODODENDRON BALSAMIFLORUM VAR. ALBUM

eral species. All of them grow satisfactorily and bloom magnificently. Most of them are in their heyday during the first fortnight of June, but some come into bloom earlier, and others not till later. What with these and masses of white, pink, flame and yellow azaleas; profuse Diervillas, pink and white; huge snowballs heading with their loads of bloom; oriental scarlet poppies; the stately golden Verhascum Olympicum; red and white double feverfew; variously colored clematises, and many other hardy plants in bloom, our out-door gardens should be gay indeed.

There is a great variety of rhododendrons, but all are not hardy, and unless we have a warm shed, cellar, greenhouse or other satisfactory winter quarters for them, we should not attempt to cultivate any as out-door plants except such as are perfectly hardy.

Rhododendrons love a cool, moist, but not wet soil; they thrive well in ordinary garden ground, but dislike manure in the earth. Although peat is not at all necessary to their existence, old wood soil, rotted leaf mould, or well-rotted and pulverized peat or muck added to their soil, helps them considerably. They like a spot well sheltered from cold, biting winds, and where they are shaded a little from noonday sunshine. This shade although not absolutely necessary, is highly beneficial; it saves the flowers from early decay and the shrubs from injury in winter caused by sudden thawing and freezing. A northern or eastern slope, if sheltered from winds, suits them admirably. They also may be very appropriately used in planting near water.

In planting keep them together. Don't scatter them here and there all over the place; don't mix them up among other shrubs. Never plant except when the soil is free, finely broken up and mellow. I keep our plants mulched all the time—in winter as a partial protection against hard freezing and a preventive of sudden thawing and freezing, and in summer to keep the ground cool and moist and in this way congenial to the roots.

Except to cut out dead wood (of which there is very little) and to shorten back an erratic straggling shoot, rhododendrons need no pruning; but in order to secure a strong growth in summer and a good crop of flowers the next spring, it is well to rub off all the seed vessels as soon as the flowers drop off. We always do this to rhododendrons and azaleas.

We find the following are among the best hardy sorts: Abraham Lincoln, rosy crimson; Everestianum, rosy lilac; album elegans, white; album grandiflorum and delectatissimum, blush; Charles Dickens, crimson scarlet; H. H. Hunnewell, H. W. Sargent, both crimson; Lee's dark purple; roseum elegans; Purpureum elegans, and Mrs. Milner, crimson. Among the dwarfs R. ovatum, ferruginum, Wilsonianum, tenellum, hirsutum and some others are blooming very nicely with us just now. They make a pretty border to a large bed, but need very good shelter. WM. FAIRCLER.

Messrs. James Veitch & Sons have introduced two double forms of rhododendrons, one white and the other yellow in color. We give an illustration of the white one. The flowers are said to be very persistent and valuable for bouquet work.

Practical Points.

In the rush of the spring business many, perhaps a large majority of florists, are apt to neglect future requirements for immediate profit. Orders crowd in thickly, which must be filled promptly and carefully, absorbing the attention of all hands in order to insure the satisfaction of patrons. Moreover, every nerve is strained at this time to secure as large a stock as possible, and apparently no matter how large the stock may be, it is only equal to the demand, thus affording convincing proof that the use of plants for the ornamentation of private and public gardens is largely on the increase. It is but natural and right that all enterprising business men should be awake to the necessities of their trade, and

allow nothing to interfere with an earnest and persistent desire to meet the wants of all intending purchasers. "Make hay while the sun shines" is an old motto, but one needing continual application; and as to how hard some people work to make their hay, we have a striking illustration in Mr. Henderson's statement of sixteen hours as his average daily labor.

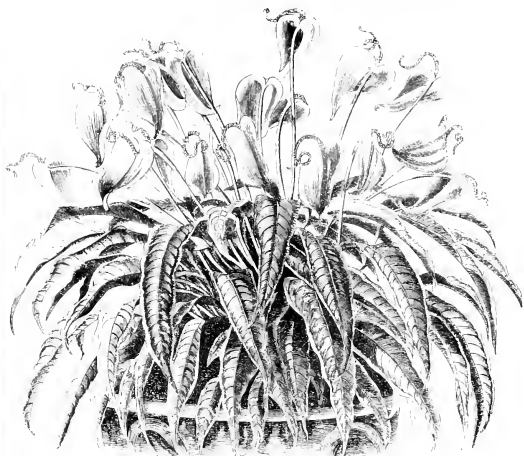
Nevertheless, there is a limit to every man's capacity, physical as well as mental. There is such a thing as attempting too much. In our desire to make the most of our opportunities, we propagate plants by the thousands, and crowd our benches with these spring plants, often to the serious detriment of other stock, also needing care and attention. I have seen lovely latanias and arecas stored away under benches to make room for more rapidly growing plants, there to stay for weeks, neglected and starved. Coleus placed upon the same bed in which roses are planted will probably grow well, but the roses will suffer in consequence and soon show signs of poor management.

There are very few commercial places around which we can walk during the month of June without seeing some necessary work neglected, and plants suffering because of it. The constant plea is: "We have been so busy we could not get at it before." Work performed at the time it first becomes essential saves much extra labor and harassing care. Besides, by delay in any of the indispensable operations of potting, planting and watering, a weak and impoverished condition of the plant is encouraged, causing it to become easily liable to disease.

At this time of the year, in particular, all possible care should be given to those plants that we need for winter blooming. The foundation for healthy and vigorous stock must be laid now. Given a stunted and weakened condition at the start, no after care will ever compensate for an early period of neglect. True, at the time we may receive a few more dollars by attending to the demands of the hour, yet what advantage will this be to us if we neglect other work of equal if not greater importance.

Especially with carnations and violets is the evil of delay apparent. Both these plants should be placed in their summer quarters as soon as ever the ground is ready for them, for by so doing root action will have commenced before the hot, dry days come, and they will be much better able to withstand the excessive droughts which we experience nearly every summer. Roses, too, are often sadly neglected at this time. Mildew and spider now obtain a foothold, entailing weeks of labor in the fall to bring the plants round to anything like a healthy state. Of course, I am speaking to those who do not change their rose beds every year. According to the writer's opinion, roses that are grown for two or three years need as much, if not more care, through the summer months than at any other time.

Most assuredly, then, it will be found by any observant and experienced man that work neglected or delayed never pays, no matter how great the present benefit may appear. What, then, are we to do when our business crowds us every spring? One remedy that is always applicable is to have sufficient employes to meet the increased labor. A systematic man can always keep up with his work, however great its pressure, if an adequate supply of manual labor is at his disposal. But for many reasons this



ANTHURIUM SCHERZERIANUM

remedy is not always available. Where this is the case, "burning the midnight oil" may help to solve the difficulty; yet to grow less, and consequently grow our plants better, will be found a means always efficient to the end. A. E. W.

The Flamingo Plant.

(*Anthurium Scherzerianum*.)

The subject of the accompanying engraving is an old and well-known stove plant, but of such sterling merit that no apology is needed for occasionally bringing it before the readers of the FLORIST. It is admirably adapted for many purposes of the florist, and especially is it useful for general house decoration, surpassing any other flower in brightening up a group of plants, or for a center plant for a table, etc. In a cut state it can be used with great effect in baskets and vases; the grotesque form and brilliant color render it an extremely attractive and interesting flower. I say *flower*, as it matters little to a florist whether the term is botanically correct or no, provided it stands in place of a flower. The flowers will remain on the plant perfect for fully three months, and can be kept in water in a cut state more than a month.

The species was introduced from Costa Rica about twenty seven years ago, but cultivation has so changed its original character that good varieties of the present day might easily be mistaken for distinct species. From an old drawing in the *Botanical Magazine* the species is represented with very narrow leaves, spathe and spadix little over an inch in length, supported by a 6-inch stalk. Compare this with the variety maxima, with spathe six inches by four, stalks more than two feet long, and leaves

more than four inches across. This great improvement is not entirely due to cultivation, but partly to selecting the finest flowers to bear seed, and retaining the strongest and most promising seedlings for further propagation. Curiously, a batch of seedlings selected from the best types will sometimes revert to the original character, a fact which we unfortunately experienced recently; whether these will improve with age remains to be seen.

Inter crossing the distinct types has given us some very pretty varieties, as in Rothschildiana, the result of a cross between the type and the white variety called Willmansi or album. In this hybrid the spathe is white, much spotted with red. A variety called Mt. Emile Bertrand differs slightly from this in having smaller spots, and is doubtless of the same origin. Andagavense has the back of the spathe scarlet, dotted with white, while the front is white, blotched with red. Mutabile is a curious and interesting variety possessing white spathe, which change with age to a scarlet color. There is a half-double variety named semi-plenum, more curious than useful; also one called pygmaeum, of small size and only remarkable for having the flowering part of the spathe separated from the spathe by a stalk about an inch long. Among the large and strong growing varieties may be mentioned Wardi, Palmerii, Cypherii, Maximum, Woodbridgei, etc. These, though all differing slightly from each other either in length, breadth or shape of spathe, are so near alike that they may be classed under the variety Wardi. A variety called atro-sanguineum is very distinct, is of the Wardi type, but the stalk and spathe are of a deep blood color. Brilliantissima is the name of an extremely bright-colored variety.

The cultivation of these plants is very easy, they requiring abundance of water—indeed, may be treated as half aquatics, providing they get abundance of heat. They should be potted in equal parts of peat and sphagnum, in well-drained pots. The roots should not be disturbed more than absolutely necessary. A top dressing once or twice a year may be necessary to replace the waste due from the constant waterings, and when pot-bound liberal doses of liquid manure will be found very beneficial. Propagation is effected by division of the growths, by cutting the rhizome to one or two eyes, or by seedlings. The first method is adopted for increasing good varieties, and the latter for obtaining new ones and as a quick way of working up a stock.

F. GOLDING.

Prize Floral Design.

Our illustration is of a design arranged by Mr. Charles Eble, with E. Baker, New Orleans, which was exhibited at the spring show of the New Orleans Hort. society in March last, and was awarded first prize. The excellence of the illustration renders unnecessary any description.

Massachusetts Horticultural Society.

The annual rose and strawberry exhibition of the Massachusetts Hort. society, which was announced to take place on June 21 and 22, turned out to be the annual rose exhibition only, strawberries being so late this year that this part of the show was postponed for one week. This arrangement would be a good one to make permanent, as it is seldom that roses and strawberries are both at their best at the same time.

The roses this year were cleaner, fuller and better in every respect than in last year's exhibition. The displays made by J. B. Moore, Mrs. F. B. Hayes, Warren Heustis, W. H. Spooner and J. L. Gardner were especially good and were awarded many of the best premiums in the different classes. Thos. Mead showed a vase of splendid American Beauties, and from Jackson Dawson came thirty-six species of wild roses.

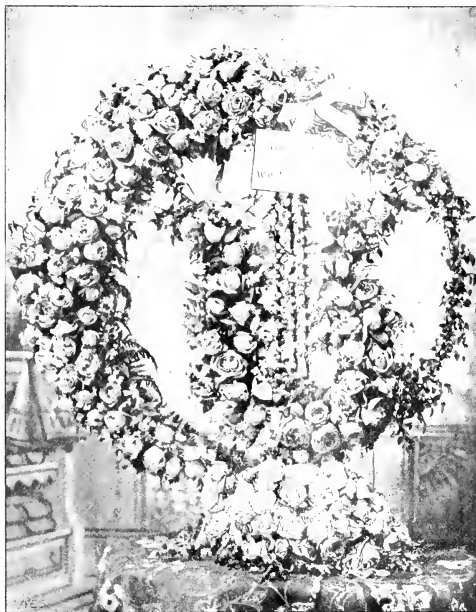
Some of the rose exhibitors would increase the attractiveness of their displays if they would exercise more taste in their labels and the manner of attaching the same to the flowers. When six roses of the same variety are exhibited in one box, it surely is not necessary to have a big wooden or paper tag tied under every individual flower, and it certainly detracts much from their appearance.

The orchid section was, as usual, very interesting and complete. It was particularly gratifying to see a commercial man—Mr. Beuj. Grey, of Malden—enter the lists in the orchid department, and successfully, too, for he secured a number of prizes.

The finest plant in the hall was a *Cattleya gigas* from Mrs. Oliver Ames, Sr. A *Cattleya gigas* *Sanderiana* from David Allan was also much admired. Mr. Allan's collection throughout was splendid, including many cattleys, cypripediums and odontoglossums; also some fine stone plants and the best collection of ericas that has been seen here for a long time.

E. W. Gilmore and W. A. Manda also showed many fine orchids.

Mr. Manda's collection included many cypripediums, also a new variety of *Cattleya Eldorado*, which Mr. Manda has named *Allaniana*, in honor of Mr. David



PRIZE FLORAL DESIGN

Allan. This plant was awarded a first-class certificate of merit.

C. M. Hovey's exhibition of cut pelargoniums was simply grand, and the collection of pansies from the Mielze Floral Co., of Springfield, the best that have been shown here this season.

WM. J. STEWART.

New York.

Mr. and Mrs. Peter Henderson are in Boston attending the rose show.

A portion of John Bush's fine collection of crotons will be sold at auction the 24th inst.

Curious and beautiful hydrangeas have been imported from Japan by a city florist. These will be the sensation next season.

There will be a hegebra of florists and their wives in August towards Chicago. This will be their vacation trip, and it is much anticipated.

Frank Hamilton decorated the altar of Dr. Kittredge's church, which closed for the season June 19, with pond lilies and wild ferns, in a highly artistic style.

The floral urn made by Frank Hamilton for the veteran association of the fifth New York volunteers, Durvea Zouaves, and placed upon the grave of

Major-General G. K. Warren at New York Decoration day, was an elaborately worked out piece of natural flowers.

Fred. Gordon decorated Sengerbund hall, Brooklyn, on the 21st ult., for the wedding of Mr. F. W. Piper. There was a chaste arrangement of *Eucharis amazonica*, daisies and carnations in bands placed diagonally on the walls. A canopy of wild flowers was finished by a bell of roses and lilies.

Lord & Burnham are putting up 20,000 feet of glass for Peter Henderson. The houses will all be low, and twelve feet wide. This looks like going backward, but these houses are required for the special purpose of growing half-hardy plants—in fact, are intended to take the place of pits and cold frames. They will be heated by steam, but only sufficiently to keep out frost.

PHILADELPHIA.—At the last meeting of the Florist club the subject for discussion selected for the next meeting was: "How shall we get to Chicago?" This was unanimously agreed upon by a "Hurrah!" which is an indication of the enthusiasm that is manifested towards the S. A. F., and a rousing meeting in August next may confidently be counted on.



The plant trade of 1887 shows a considerable gain over last year, the use of plants among people of all classes of society having without doubt increased. The outlook for the florist is certainly good, especially when it is taken into consideration how many other trades have suffered from the effects of depression, etc. That our readers might know in what sections of the country the gain has been made and at what prices their brother florists in other cities have retailed their stock, we have at considerable expense obtained the following complete report giving the prices per dozen at which the standard sorts of market and bedding plants have been retailed in the cities named below.

	Trade compared with last year.	Geraniums.	St. leaved Ger.	Fuchsias.	Heliotropes.	Tea Roses.	Hybrid Roses.	Fl. Begonias.	Rex Begonias.	Verbenas.	Pansies.	Coleus.
		4-inch	4-inch	4-inch	4-inch	4-inch	4-inch	4-inch	4-inch	2 1/2-inch	2 1/2-inch	2 1/2-inch
Akron, O.	larger	\$ 1.00	1.00	1.20-1.50	1.20	...	3.00	1.50	1.50	50	50	50
Augusta, Ga.	larger	1.00-1.50	1.00-1.50	1.50-2.00	1.00-1.50	...	...	1.00-1.50	2.00	50	...	50
Baltimore, Md.	less	60-1.00	...	1.50-2.00	75	2.50-5.00	2.50-5.00	...	...	...	...	...
Birmingham, Ala.	larger	1.50	2.00	2.00	1.50	2.00	2.00	1.50	2.00	75	75	75
Bismarck, Dak.	less	3.00	3.00	2.00	2.00	4.00	...	3.50	...	75	75	1.00
Buffalo, N. Y.	double	1.50-2.00	1.50	3.00	1.50	3.00	...	2.00-3.00	3.00-4.00	60	50	75
Camden, N. J.	larger	1.00-1.25	1.25	1.25-1.75	1.00-1.25	4.00-5.50	4.50-7.50	2.25-5.00	1.50-3.50	65	60	75
Cedar Rapids, Ia.	larger	1.50-2.00	2.00	1.50-2.00	1.50	2.25	...	...	3.00	75	75	1.00
Chicago	larger	1.50-2.00	2.00	2.00-3.00	1.50-2.00	3.00-4.00	3.00-4.00	...	...	50-75	35-50	75
Cincinnati, O.	larger	1.00	1.00	2.00	1.50	2.50	2.00	2.00	2.00	75	50	75
Cleveland, O.	larger	1.00	1.00	1.00	1.00	3.00	4.00	3.00	2.00	50	50	50
Columbus, O.	larger	1.50	1.50	1.50	1.50-2.00	3.00	3.00	1.50	1.50	50	50	50
Crawfordsville, Ind.	larger	1.50	1.50	2.50	1.50	2.50	3.00	2.00	3.00	75	25	50
Danville, Ill.	larger	2.00	2.50	2.50	2.00	2.50-3.00	5.00-6.00	3.00	4.50	50	50	75
Davenport, Ia.	larger	2.00-3.00	...	2.00-3.00	2.00-3.00	...	2.50	3.00	3.00	50	25-50	50
Des Moines, Ia.	less	2.00	1.50	2.00	2.00	2.50	3.00	2.00	2.50	75	40-50	60
Detroit, Mich.	larger	1.50-2.00	1.50-2.00	1.50-2.00	1.50	4.00	5.00-6.00	3.00	4.00	40	40	60
Elan Claire, Wis.	equal	2.00	1.50	3.00	3.00	3.50-4.00	3.50-4.00	2.50	2.50	75-1.00	60-75	75-1.00
Elgin, Ill.	larger	1.50	1.25	1.50	1.50	2.00	2.50	...	2.00	45	35	50
Erie, Pa.	larger	1.50	1.50	2.50	1.50	3.00	3.00	1.50	1.50	50	50	50
Evansville, Ind.	equal	1.50	2.00	3.00	2.00	2.50	3.00	2.00	1.50	75	50	75
Fayetteville, N. C.	equal	2.00	2.00	2.00	2.00	2.00-3.00	2.00-3.00	1.50	2.25	1.00	1.00	1.00
Fond du Lac, Wis.	larger	1.25	...	1.25	1.25	1.25	...	1.50	...	60	50	50
Ft. Scott, Kan.	equal	1.00	1.00	1.00	1.50	1.75	2.00	1.00	3.00	50	25	40
Grand Rapids, Mich.	larger	75-1.00	1.00-1.50	1.00-1.50	1.25-1.50	1.50-2.00	2.00-3.00	1.50-2.00	60-2.25	50	35	50
Harrisburg, Pa.	larger	1.00-1.50	1.00-1.50	1.00-1.50	...	...	...	1.25	1.25	50-75	50	50
Hillsdale, Mich.	larger	1.50	1.50	1.50	1.50	2.00-3.00	2.00-3.00	2.00-3.00	2.00-3.00	50	40	75-1.00
Indianapolis, Ind.	larger	1.50	...	2.00	...	3.00-4.00	4.00-5.00	2.50-4.00	3.00-3.50	75	75	60
Kansas City, Mo.	larger	1.50-2.00	...	3.00	3.00	3.00	3.00-4.00	3.00	3.00-4.00	50	50	50
Lancaster, Pa.	larger	1.25	1.40	1.30	1.00	1.50	2.00-3.00	1.50	1.60	40	35	35
Leavenworth, Kans.	...	1.50	1.75	1.50	1.50	2.00	2.00	2.00	2.00	50	50	50
Little Rock, Ark.	larger	2.25-2.50	...	...	2.00	2.50-3.00	...	...	...	75	1.00	75
London, Ont.	larger	75-1.50	...	3.00	1.50	3.00	3.00	2.00	2.50	75	25-60	50-75
Louisville, Ky.	larger	1.00	1.00-1.50	1.25-2.25	1.00	1.50-3.00	2.00-3.00	1.50-2.00	1.50-2.00	50	50	50
Memphis, Tenn.	less	1.00	...	...	75	2.75	...	3.50	...	60-75	60-75	35-50
Millwaukee, Wis.	larger	1.50	1.50	1.50	1.50	2.00	3.00-4.00	3.50	1.50	60	40	75
Minneapolis, Minn.	larger	2.50	2.50	2.50	2.50	2.50	4.00	2.50	4.00-6.50	1.00	75-1.00	1.00
Montreal, Canada.	equal	1.00	1.00	1.00-1.50	1.00	1.50-2.00	2.50-5.00	1.00-1.50	1.00-1.50	1.00	1.00	1.00
Muscataine, Ia.	equal	3.00	3.50	3.00	2.50	3.00	3.50	3.00	2.50	75	50	50
Nashville, Tenn.	less	1.50-1.75	2.00	...	2.00	1.75-2.00	...	2.00	2.00	60	50-60	60
New Bedford, Mass.	larger	2.00	2.50	2.50	...	3.00	...	2.00	...	50	50-1.00	1.00-1.50
New Haven, Conn.	larger	1.50	1.50	2.00	1.50	2.00	2.00	2.00	2.00	50	50	60
New Orleans, La.	larger	1.00-1.50	1.50	2.50-3.00	75-1.00	1.00-1.50	2.00-3.00	...	3.00-4.00	50	25	25
Norwich, Conn.	equal	1.50-2.00	2.00	2.00	1.50	1.50	2.00	1.50-2.00	1.50-2.50	50	35	50
Oakland, Cal.	larger	1.50	1.50	2.50	2.00	3.00	3.00	...	...	1.00	50	1.00
Philadelphia	larger	1.50	2.00	2.00-2.50	2.00	3.00-4.00	3.00-4.00	...	...	75	75	75
Pittsburg	larger	1.00	...	1.50	1.00	1.50	...	1.75	1.75	50	50	50
Portland, Ore.	larger	1.50	1.50	1.50	1.50	3.00	3.00	2.50	2.50	50	25-50	50-1.00
Providence, R. I.	less	1.00	1.00	1.50	1.00	3.00	9.00	2.50	...	50	50	50
Quincy, Ill.	larger	1.50-2.00	2.00	1.50	1.75	2.50	3.00	2.50	4.00	25	25	50
Raleigh, N. C.	larger	2.50-3.00	...	1.50	1.50	1.50	...	1.50-2.00	...	75	50	75
Richmond, Va.	equal	1.50	2.00	2.00	1.50	3.00	3.00	...	...	50	50	50
Rochester, N. Y.	equal	1.25	1.50	2.00	1.50	3.00	3.00	2.00	3.00	60	60	75

	Trade compar- ed with last year.	Geraniums.	Sil. leaved Ger.	Fuchsias.	Heliotropes.	Tea Roses.	Hybrid Roses.	Fl. Begonias.	Rex Begonias.	Verbenas.	Pansies.	Colons.
Rockford, Ill. . . .	double	2 25-3 00	2 50-3 25	2 50-3 25	2 50-3 00	2 50-3 00	2 50-3 00	2 25-3 00	75	50	50	50
Salt Lake City, Utah	less	2 00	3 00	2 50-6 00	3 00	5 00-8 00	2 50-5 00	1 00	50	50	1 00	1 00
St. Joseph, Mo. . . .	larger	2 00	2 50-3 00	2 00	2 50	3 00	2 50	2 75	75	75-1 00	50-1 00	50-1 00
St. Louis, Mo. . . .	larger	1 25	2 00-3 00	1 00	1 00	1 50	3 00	1 50	3 00	50	50	50
Savannah, Ga. . . .	larger	2 00	2 00	2 00	2 00	2 00	3 00	2 00	2 00	50	50	50
Springfield, O. . . .	equal	1 00	1 00	1 00	1 00	1 50	3 00	1 50	2 00	50	50	50
Springfield, Ill. . . .	larger	1 25-1 50	2 50-1 50	2 00	2 00	2 00	3 00	2 00-2 50	2 00	50	50	50
Springfield, Mass. . .	larger	1 00	1 00	2 50	1 00	3 00	1 50	2 00	2 00	50	50	50
Toledo, O.	equal	1 50	1 50	1 50	1 50	3 00	5 00	1 50	2 00	50	50	50
Toronto, Ont.	larger	75	1 25	1 25	1 25	5 00	1 50	1 50	2 00	40	40	75
Trenton, N. J.	larger	1 00	1 00	1 50	1 00	2 00-3 00	3 00	1 00	1 00	40	40	50
Utica, N. Y.	1 00-1 50	1 00	1 00	1 00	1 00	1 50-2 25	2 50-5 00	2 75	1 50-2 25	50	50	50
Vincennes, Ind. . . .	larger	1 50	2 00	1 50	1 50	2 00	2 00	1 50	2 00	75	50	60-100
Wilmington, Del. . .	1 00	1 00	2 00	1 00	2 50-1 00	2 50-1 00	1 50-3 00	1 50	2 00	60	50	60
Zanesville, O.	larger	1 00	1 50	1 50	1 00	2 00-1 00	2 00-3 00	1 50-3 00	1 50	50	50	75

Daily Record of Work Done at the Lincoln Park Greenhouses, Chicago, 1886.

July 1—Tem. 71, 77, 70. NE. to E. Potted from boxes *sempervivum*, cleaned and trimmed beds.

2—Tem. 66, 77, 74. E. to NE. Cleaned and trimmed beds. Sowed seed of *primulas*, of our own raising.

3—Tem. 65, 82, 80. S. to E. Cleaned and trimmed beds. *Clematis* and hollyhocks commence flowering.

4—Tem. 75, 85, 82. SW. to SE. Sunday.

5—Tem. 78, 90, 85. S. After the necessary watering quit work and celebrated.

6—Tem. 80, 98, 93. SW. to W. Cleaned and trimmed beds, vases and stands. Potted *sempervivum*. Stowed away pots in shed.

7—Tem. 75, 73, 66. NW. to NE. Same as yesterday.

8—Tem. 69, 74, 70. NE. Planted beds of *celosias* and *Cineraria coddissima* in place of stocks removed. Potted *sempervivum* and tied up hollyhocks.

9—Tem. 70, 70, 70. S. to NE. Potted out of boxes *Sempervivum Californica* and *Echeveria rosacea*. Transplanted *achimenes* into 4-inch plots. Arranged pots in house.

10—Tem. 70, 74, 74. NE. Cleaned and trimmed beds, and same as yesterday.

11—Tem. 74, 74, 70. W. to N. Sunday.

12—Tem. 70, 84, 76. SW. to NE. Trimmed and thinned *alysium* borders. Commenced turning compost. Tied hollyhocks.

13—Tem. 66, 90, 75. SW. to E. Transplanted into 4-inch pots a lot of late *celosias*. Finished potting *echeverias*. Turned compost.

14—Tem. 63, 68, 68. N. Cleaned and trimmed beds and turned compost.

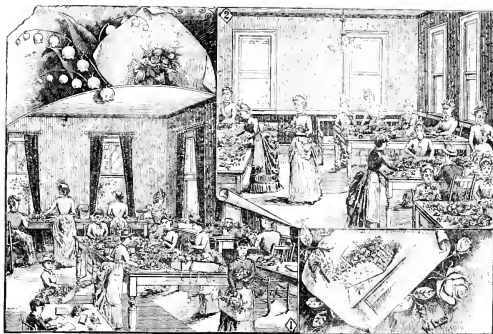
15—Tem. 64, 74, 72. N. to E. Finished transplanting *celosias*, transplanted *violas* into 3-inch pots and turned compost.

The New York Flower Mission.

The picture of the flower mission illustrates a most charming charity. The first flower mission was instituted in Boston, and is now regularly maintained. The New York flower mission is carried on by a corps of ladies, most of them being prominent in society. The room is given free by All Souls' church, and is an annex to the main church, two stories high. No. 1 represents the lower room, where the flowers are received from expressmen, the companies transporting all packages free. In this lower room the

flowers are unpacked and assorted, the boxes are kept, every donation being recorded and published in annual report. The ladies in the upper room, No. 2, tie up the bouquets and make garlands and designs. The tastes of those in the

AKRON, O.—Last year a woman started in and cut prices here in order to monopolize the trade, and this year two Germans have knocked the bottom out of even her prices, and made the woman as mad as she made the rest of us last year.



THE NEW YORK FLOWER MISSION.

different institutions are carefully considered. In the German hospital *procuries* are preferred. Colored people and the blind are fond of sweet scented flowers, lilacs being favorite. Those in tenements choose geraniums. As soon as the baskets are filled those delegated start for the hospitals and tenements to distribute the flowers to the sick and poor. The mission is now in its eleventh year of existence. Last season over 100,000 bouquets were distributed.

In the insane asylums the flowers are particularly appreciated, as they are in the children's wards of the hospitals. Small plants in thumb-pots are frequently sent to the mission, and these are given to those in tenements, who cultivate them in windows.

LANCASTER, PA.—Hail did serious damage to all growing crops here June 19. A. M. Herr lost 900 feet of glass; covered by insurance in the Hail association. The other florists escaped with slight damage.

THE ROSE BUG.—This insect has attacked both the peach and the grape in western Pennsylvania. Mr. Joseph B. Coale, of New Brighton, recently exhibited in Pittsburgh a box of half-grown peaches on which the bug's ravages were plain to be seen. Mr. Coale says that not only have the insects attacked the peaches in Beaver county, but that during several years past they made havoc on grapes. It would seem that the bug is developing a taste for fruit that is alarming, but Mr. Coale says that the pest can be destroyed by the fumes of burning sulphur, using kerosene oil to stimulate the combustion, care being taken not to scorch the tree. He says he has often destroyed a quart of them in a few minutes by holding a pan of the burning mixture under grape vines and peach trees, and thinks if a general onslaught were made on them the pests might be well nigh exterminated in one season.



The American Beauty.

Madam F. Jamain is very dissimilar to the rose known as American Beauty, both in its habit and color, but Mr. Harms is right when he states that the latter is not a new rose. In 1873 this same rose was sent out by Vernet, under the name of Madame Bellon. It was imported by Mr. Anthony Cook, the raiser of the rose Cornelia Cook—and I believe there are none more familiar with roses than he—who sold it to Mr. Bancroft, of Washington, and in whose garden I doubt not the old plant may be found. I think that if Mr. Field had closely examined the "chance seedling," he would have found it to be a budded plant, though planted below the bud. That it is a grand rose is undeniable, and it certainly belongs to the Victor Verdier class: I have no doubt that good old rose is one of its parents.

While I have the subject in mind I would suggest to the committee on programme for the coming annual meeting of the national society, that it would be well to take up the subject of nomenclature at that time, not only of roses but of many other plants which have been so misnamed that we old florists frequently cannot recognize them under the names given in various catalogues.

BALTIMORE.

[The statement that American Beauty and Madame Bellon were the same has been made before, and in order to satisfy himself on the point, Mr. E. G. Hill, of Richmond, Ind., imported some plants of Madame Bellon and grew them on alongside of some Beauties. He states that while the roses were somewhat similar they were far from identical.—Ed.]

"WESTERN FLORIST'S" ROSES.—I am surprised that a man of Mr. May's experience should ask for information in regard to the roses which "were killed by a half-inch mulching of cow manure." A moment's thought would have convinced him that they starved to death.

A. ROSBACH.

AMERICAN BEAUTY AND HER MAJESTY.—Plants of the Beauty on Manetti stock, budded last fall and left in the open field the past winter, have bloomed magnificently with us this spring, producing many more blooms than was even expected. Her Majesty under the same conditions failed, however, to meet even our limited expectations. Out of five plants that made a fine, vigorous growth, not ten per cent. of the plants have produced a single flower up to date. P.

Plant Notes.

NEW FUCHSIA, MRS. E. C. HILL.—This is one of Lemoine's novelties, which is highly praised and offered as the best double white yet sent out.

NEW DOUBLE ANTIRRHINUM.—Mr. John Porteous, Paducah, Ky., sends us flowers of a seedling antirrhinum of a clear shade of lemon yellow, the blooms being quite double.

PANSIES.—Mr. Frederick Roemer, of Quedlinburg, Germany, sends us a half-dozen blooms of remarkable size and beauty. None measure less than two and a half inches across, and several measure full three inches. The form and colors of the specimens sent were most excellent, and combined with size, caused them to present a very striking appearance.

FORMATION OF BUDS.—Whatever produces excessive vigor in plants is favorable to the formation of leaf-buds, and unfavorable to the production of flower buds; while, on the other hand, such circumstances as tend to diminish the luxuriance and to check rapid vegetation without affecting the health of the plant, are more favorable to the production of flower-buds than of leaf-buds.

LINDLEY.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order.

SITUATION WANTED.—I am open to a permanent engagement commercial place near N. Y. City. Write to S. F. Farris, Fort Smith, Va.

SITUATION WANTED.—By young man (25), strong and willing, as assistant in private or commercial place; reference. M. 1263 Chestnut St., Phila.

SITUATION WANTED.—As foreman or propagator for commercial place, thorough understanding the shipping business; married. Address, A. K. care Ann Florist.

SITUATION WANTED.—As gardener or florist by someone with 7 years experience; has steady habit. Address, JOHN CROCKETT, 266 Honore St., Chicago, Ill.

SITUATION WANTED.—By a practical gardener preferred; single, age 35 years. Private place preferred; good recommendations. Address, E. O. EAST, Park Ridge, Ill.

SITUATION WANTED.—By young man (25), in nursery or florist's place, where duties will be light, temperate moderate; reference. P. 1263 Chestnut St., Philadelphia.

SITUATION WANTED.—By practical florist; German, 20 years in this country, married; best of references. Address, G. K. B. Brown Street, Joliet, Ill.

SITUATION WANTED.—Gardener, single; good references; private or commercial. Address, GARDNER, box 25, Montgomery, Mo. Montgomery Co., Pa.

SITUATION WANTED.—To grow roses, propagating, designing finer bedding, landscaping, house construction, single man, sober, honest and reliable. Address, FLORIST, care W. J. Stewart, Boston, Mass.

SITUATION WANTED.—By a Frenchman, single, understands gardening in all its branches, is experienced, good reference in this country. Address, E. HARRY, care John A. Morris, Westchester, New York.

SITUATION WANTED.—As first-class gardener and florist, 25 years old, married, 15 yrs. bride, wife will go as plain cook; worked 15 yrs. must have the best of references as to ability, as only gentleman wanting first-class man need answer this. Address, P. J. S. JAMES, care Chicago Florist, 386 Grand Boulevard.

SITUATION WANTED.—As assistant or subman; understands sale of everything pertaining to the business of seedsmen and florists; experienced and capable; good knowledge of the business, management and arrangement and sale of flowers. Address, A. B. K. care Mrs. E. A. Watters, 756 Republic St., Cleveland, O.

WANTED TO LEASE.—A commercial place, 3 to 5 houses, terms must be easy, state price and particulars. Address, H. B. care Ann Florist.

WANTED.—3 lemon and 3 orange trees. Address, JAMES HENRICK, 35 North Pearl St., Albany, N. Y.

WANTED.—A first-class rose grower and general florist who has worked at commercial places. Address with reference, stating salary expected. J. T. BARTLETT, 26 Grand Ave., Milwaukee, Wis.

WANTED.—A practical rose grower and propagator to act as foreman in a commercial business. Any florist with good references may address E. A. S. care Ann Florist.

WANTED.—A man of sober and industrious habits, competent to take charge of a gentleman's place, with good references. Address, A. ZIMMER, 512 Adams St., Montgomery, Ala.

WANTED.—Foreman to take charge of large commercial greenhouse; must be a first-class propagator and understand cut-flower trade. None but a first-class man in all branches need apply. Best of reference required. Apply, stating terms, to L. L. MAY & Co., St. Paul, Minn.

WANTED.—A good man that understands the growing of cut-flowers in all its branches, to take charge of 30,000 feet of glass and ten acres of ground in most fruitful soil, at the price of his ability and place. Address, J. B. SUTTON, Ocala, Fla.

WANTED.—A practical florist of strictly moral habits, and \$1,000 or more cash capital, to take an interest in an established seed and floral business, a man with fine references. Address, J. B. SUTTON, Ocala, Fla.

WANTED.—A man of sober and industrious habits that understands the shipping trade and all branches of propagating of roses and cut-flowers, especially roses. None but with best of reference need apply. Address H. 3, care AM. FLORIST, Chicago.

WANTED.—A reliable party with some money and a little practical knowledge in the business of an interest and charge of a well established and rapidly growing trade. Best location in the southwest; no money required to identify with the business and fifty miles. Must be reliable, qualified and have money enough to identify with the business. Address, OPPORTUNITY, care Ann Florist.

FOR RENT.—My greenhouses at Webster Groves, St. Louis, Mo. Fine assortment of Roses in good growing condition. Possession July 1st. C. W. JOHNSON.

FOR RENT.—Five medium sized greenhouses and some hot-bed space, four to five acres good garden with five year lease of lot 100 ft. 125 ft. Three living lease for 3 or 4 years. The very place for a good general gardener. Apply for particulars to J. M. ALLAN, 240 Broadway, N. Y. Co.

FOR SALE.—2,000 Storm King, From Emma Topfer! Fuchsias, extra strong trailing size. Price, \$1.25 per dozen; \$8.00 per box; \$5.00 per 100.

FOR SALE.—N. E. Hitching & Co., corrugated fire box boiler, 3 years old, in good condition. Price \$85 delivered on board canal boat or cars. Address, J. W. STEVENSON, New York City, N. Y.

FOR SALE.—Most desirable floral business in the West. Splendid local and shipping trade. Population of city 40,000. Sole reason for selling, failing health. Address, WYSTEAD, care American Florist, Chicago.

FOR SALE.—Four large greenhouses and contents, with five year lease of lot 100 ft. 125 ft. Three living lease in connection with greenhouses. Place located in the city of Chicago. Address, F. C. G. SCHMIDT, 414 Seminary Ave., Chicago.

FOR SALE.—Two greenhouses 8x85 each, with office 3x15; fine retail location in center of Chicago. Everything in fine condition. Terms will be offered at a reasonable price for cash. Address, MACK, care American Florist, Chicago.

FOR SALE.—The valuable collection of stove and greenhouse plants, belonging to R. C. Payson, Belmont, Mass. Is to be sold after May 28; there are many the specimens of Anthuriums, Crotons, Marantas, Palms, and Azaleas. Address, J. WHEELER, gardener, Belmont, Mass.

FOR SALE OR LEASE.—To a good grower, five thousand feet of glass, and grow roses and carnations, my roses and carnations are in fine condition. Will use all good roses and carnations grown. A few hundred will be needed to purchase one stock of roses and carnations. Address, E. H. HOWLAND, Florist, Holyoke, Mass.

FOR SALE.—Most desirable floral business in Southern California, in shipping trade. Four greenhouses, two lots and a Brown dwelling, on street car line; would sell floral business separate if moved. Failing health compels me to quit business. Address, S. OBERHOLFF, 429 West 3rd St., Pueblo, Colorado.

FOR SALE.—Greenhouses and three or six acres of land, or will sell the place of thirty-four acres with good improvement; business established since 1875; roses, stock, carnations, and all other plants, and business continued as usual; will sell on easy terms, as I wish to retire from business. Address, J. J. HEDDERLEY, 515 Madison St., Chicago, Ill.

FOR SALE.—Well established florist and gardening business in a good, thriving city in central North Missouri; one greenhouse 34x40, with 100 common are in excellent condition; fine house of twelve, four cold cellar, plenty of water, the largest greenhouse within ten miles; fine trading here. Business can be rapidly increased. No greenhouse within 25 miles. Will be sold at a large wholesale price which requires his whole time. Only those having business address. Address, A. J. SWAIN, Hazleton, Pa.

FOR SALE.—Established florist business, paying from the start, in a first-class business town, 30,000 feet city water, electric light, telephone, two railroads, population 5,000, and 50,000 more in a radius of ten miles; fine trading here. Business can be rapidly increased. No greenhouse within 25 miles. Will be sold at a large wholesale price which requires his whole time. Only those having business address. Address, A. J. SWAIN, Hazleton, Pa.

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Novelties in Roses.

NOVELTIES IN GERANIUMS.

The new French Geraniums for 1886 will be ready for shipment September 15. Twelve of the very finest out of this year's new ones:

Glory of France, Remon, Sergeant Bobillet, Arc-en-Ciel, etc.

The New Roses embrace some very promising varieties.

Comtesse de Frigneuse, Mad. David, Camille Rous, Claire Cochet, and others.

Send for descriptive list and wholesale price list of other choice stock.

HILL & CO.,

RICHMOND, IND.

SUPERB

New Roses

OF 1887.

ALEX. DICKSON & SONS

Reg to announce their three Pedigree Seedling Roses.

H. P. Earl of Dufferin, undoubtedly the finest certidates, the greatest number ever awarded to any one new rose. Chromo-litho, plate of this superb Rose, mailed free on application.

D. Lady Helen Stewart, Crimson-scarlet, H. P. thoroughly distinct in color. For autumn use the variety is unsurpassed.

TEA Miss Ethel Brownlow, a truly grand and free flowering Tea Rose. This variety is possessed of greater lasting properties than any variety with which we are acquainted. Awarded six first-class certificates.

PRICE 10.6 (ten shillings and six pence). Set of three varieties 27: (twenty-seven shillings) each. Descriptive Lists on application.

A great demand for these Sterling Roses being anticipated, it is particularly requested that all who require a supply will order as early as possible, to prevent disappointment.

The Royal Nurseries,

NEWTOWNARDS, Co. Down, Ireland.

THE GRAND NEW TEA ROSE

"Comtesse de Frigneuse"

This Rose is probably the best ever raised for florist's work; the bud is of "Niphetos" or "Bennett" shape, color of "M. Neil," and rather larger than a duck's egg; a perpetual bloomer.

I am now booking orders for delivery from March to May, of this rose, as well as of the grand new Hybrid.

"CLARA COCHET."

All the new Roses of Autumn, 1886, will be ready for delivery in March.

My Catalogue of these, as well as my general Catalogue, free on application.

A splendid lot of "Perle des Jardins," "Niphetos," "M. Neil" in pots, always on hand.

Any quantity of ground plants of "Jaqueminiot," "Mme. Gabriel Luizet," "Paul Neron," "Magna Charta" and similar kinds.

JAMES L. BOYSON,
CAEN (CALVADOS) FRANCE.

THE NEW ROSES,

American Beauty, Bride, Her Majesty, W. F. Bennett, Papa Gontier.

Also good plants of the best leading varieties of Tea, H. Tens. H. Perpetuals and a general collection of greenhouse and bedding plants at a very low price. Send for prices.

JACOB SCHULZ,
1325 E. Broadway, Louisville, Ky.

10,000 ROSES,

20,000 BEDDING PLANTS.

Including the choicest varieties, and grown from good healthy stock, in 2½, 3 and 4-in. pots, and will be sold at bottom prices. Also for free-trade greenhouse roses, in 5 and 6-in. pots, and 5 greenhouse furnaces, with grate bars and doors complete, at a low disposal of cheap. No catalogue. For particulars address,

W. T. HILLBORN, FLORIST,
NEWTOWN, Bucks Co. P.A.

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GOLDEN PERLE.

— Fine Plants, \$25.00 per Hundred. —

BRIDE,

DUKE,

NIPHETOS,

PERLE,

BENNETT,

LA FRANCE,

And others. All grown from selected wood for bench planting.

Send for our Summer Trade List.

MILLER & HUNT,

WRIGHT'S GROVE, CHICAGO.

ROSES.

We can still offer to the trade the following Roses, all in fine condition for planting out on benches.

Prices for all sizes given upon application.

Puritan,

Am. Beauty,

The Bride,

Catharine Mermet,

Perle des Jardins,

Bennett,

Bon Silene,

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B. A. ELLIOTT CO.,

Pittsburgh, Pa.

A LARGE STOCK OF

FINE ROSES

For Bedding and Florists' use, including

AMERICAN BEAUTY,

SOUT. DE MAISON,

PERLE DES JARDINS,

QUEEN OF BEDDERS,

MEKMET,

SOUT. DE UN AM,

NIPHETOS,

CORNELLIA COOK.

Also a fine stock of different varieties of Hybrids in 2½ to 3-in. pots.

For prices, etc., address

FOREST GLEN FLORAL CO.,

173 WABASH AVENUE, CHICAGO.

The Out-of-door Trade.

July Floral Styles.

BY OUR NEW YORK CORRESPONDENT.

White and pale tinted flowers are chosen for the choicest arrangements. In these there is generally some conspicuous effect made with crimson or yellow blossoms; but all the wall decorations are accomplished with delicate colors and light foliage. Lilies are the flowers preferred, pond lilies being particularly fashionable.

The most elegant arrangement of the week was made for an out-of-town wedding in a low, rambling cottage, where the walls were low-studded. A fringe of pond lilies was placed all around the parlors; this was fringed with drooping lily buds and flowers. The canopy bell was made of field daisies. This was suspended in a bay window where the ceremony took place. It was most gracefully adorned with flowers and ferns, in the center of the background the family coat of arms being worked out in pansies, fringed with lilies and placed on the wall. The bride wore a white satin gown; the train breadth was composed entirely of pond lilies, and was separate from the dress; it was adjusted after her toilet was completed. Her veil was fastened with the same blossoms and a crescent of diamonds. Her bouquet was of white moss rosebuds, with a cluster of orchids at one side. There were six bridesmaids who wore pond lilies and Jacqueminot roses. The large loose hand bouquets of these were tied with cream-tinted satin ribbon; they were exquisite.

Vases, high pitchers and classic-shaped pots made of flowers, in imitation of porcelains and colored wares now in vogue for flower-holders, are a unique feature of expensive decorations. These are formed of flowers that work in smooth. Carnations are much used, the peachblow vases being well represented by shadings of this flower. Several of these floral potteries were displayed at a wedding last week, blue vases being formed of corn flowers, and yellow, pink and white of carnations. The vases were artistically filled with ferns, vines and gladioli.

Long stem carnations are almost as fashionable as lilies. Beautiful wall arrangements are made of clusters of these drooping from asparagus tracery. The striped specimens, such as grown by Albert Beutz, are beautiful, and their odor of spice is a delightful fragrance. Bouquets of long stem carnations, geranium foliage and a cluster of lily of the valley are the height of style for carrying to the races. They are made very loose, loose and flat one side, to lie in the lap comfortably.

A very dainty fashion is that of the lace handkerchief flower holder. This is a light lace square with delicate edging. A fine white bonnet wire is drawn from one corner to the other so that it will remain in shape when the corners are drawn together criss-cross. It is filled with moss buds and forget-me-nots, or daisies and lilies, and is swung from the arm by a sash. This is very favorite for the little maids of honor to carry in the wedding procession. Some costly handkerchiefs have been tied up in this way and filled with selected flowers for gifts, but the usual sort are of light inexpensive lace.

White lace parasols of small size are also gotten up for flower holders. They have white or gilt sticks, and when full

of flowers are very pretty. These are a popular garden party favor. Some have straw or gilt chateaux to work into the belt. These parasols are made in fancy silks as well as lace. Those of ecru lace with gilt handles, when filled with Perle roses or buttercup carnations and yellow daisies, are delightful.

For ball gowns worn at West Point and other places where large entertainments have been given graduating classes, our stylish florists have used lily of the valley; white organdie frocks have been beautifully embellished, the principal trimming being placed around the neck and in a side panel, which looks very chaste when fringed with this flower. Silk mull and tulle gowns have the drapery fastened with satin loops and gardenias. This is a very elegant ornament.

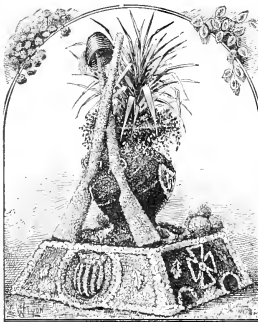


Illustration of a floral arrangement, showing a vase filled with flowers and foliage, surrounded by a decorative border.

mentation, and will probably be a favorite fashion for evening dresses at watering places. Floral fashions for these resorts have not yet been divulged, but they will be novel, undoubtedly.

All bedding effects for centers and through the table are out of vogue. A lovely arrangement was made for a breakfast given a distinguished Englishman who sailed this week. There was a silver dish in the form of a gondola in the center of the board. This contained a variety of lilies—Longiflorum, callas, pond lilies and lily of the valley, with adiantums. On each corner was a silver plate of different-colored pansies, one being white, one blue, one black and one golden. There were boutonnieres of forget-me-nots for the men, and pansy clusters for the ladies. Silver baskets, very much the shape of the low, old-fashioned cake baskets, are beautiful for floral arrangements. These look very æsthetic filled with nasturtiums or roses.

A style of rusticity pervades the souvenirs presented on steamers and to those leaving town for the summer, who expect floral gifts the same as if about to take a voyage. Fruit in many instances is mixed with flowers, and where this is the case willow baskets with side covers are used.

These covers are drawn up to the handle, where they are fastened open

with a piece of gilt cord or roping, with a cluster of forget-me-nots. The yellow fruit, such as apricots, bananas and muscot grapes are interspersed with flowers of the same hue; Buttercup carnations with long stems and honeysuckle being admirable; peaches, plums and cherries in the other side are mingled with pink and crimson roses. Where flowers are sent alone, large flat circles of soft straw, like bloomer hats without crowns, are drawn together by a fancy rope or leather strap. These are filled each side with wild flowers and grasses or choice roses. They are very much liked by those sailing, for they accommodate long stems, and the flowers may be removed and put in vases, and the baskets hung up for catchalls.

Gripsacks of twine are very jauntily arranged for souvenirs. These are very inexpensive flower-holders, but are really beautiful when fresh from the florist. The entire outside is latticed with adiantums. A cluster of mignonette and Malmaison roses is attached to the center, and the satchel is filled with bluebells and moss rose buds. A very delicate bit of floral work was the garnishing with flowers of a white satin hand-embroidered traveling case made for a bride about sailing for Europe. The case rolled up inside of a leather protector. The florist opened it, laid a sheet of white oil silk over the satin, and placed a cluster of one dozen Bride roses with a spray of stephanotis on this, rolled together and tied with a white satin ribbon.

The demand for funeral flowers and for chaste arrangements in apartments where funerals take place is steadily increasing. It is now the style to cover mirrors with flowers; for both weddings and funerals there is a disposition to drape the mirrors entirely. Chains of white roses are used, or peonies, and for mantel mirrors pale gladioli are employed with fine effect. Wreaths are still hung on the walls, but a very little is put upon the casket. At a funeral of a lady yesterday the pier glass was covered with the palest Mermet roses; at the base of the mirror there was a low bank of begonia flowers and delicate pink geraniums. In front of this was the casket, which was covered with very dark purple velvet. Placed across this in a very graceful way was a long spray of passion flower vine. Myrtle banks and myrtle wreaths are very much liked for funeral decoration. Frequently the favorite flowers of the person dead are used profusely, to the exclusion of all other kinds.

Cattleyas are very elegant and suitable for funeral flowers. A wreath of these finished with a cluster of Jacqueminots and lilies, was placed at the side of a casket. It is quite frequently the case that a single design will be placed by the coffin's side. Banks of field daisies are formed around the caskets of infants now these flowers are abundant. Scarcely any but white flowers are ordered for the funerals of the young.

New York Retail Prices.

Perles, Niphetos, Souvs., Jacques, \$1 a dozen; Cooks, La France, \$1.50; Mermet, Bennetts, \$1.25; American Beauty, \$2.50; hybrids, \$2; Bon Silences, 40 cents; carnations, 50 cents; lily of the valley, \$1.25; callas, peonies, \$2; gladioli, longiflorum lilies, \$2.50; mignonette, 25 cents; sweet peas, 40 cents; smilax, a string, 40 cents.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.25.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column \$14.00.

Cash with Order.

No Special Position Guaranteed.Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.

No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
ware pertaining to those lines ONLY. Please to
remember!Advertisements for July 15 issue must
REACH US by noon, July 5 Address,**THE AMERICAN FLORIST CO., Chicago.****Catalogues Received.**P. J. Berckmans, Augusta, Ga., plants;
James Veitch & Sons, Chelsea, England,
plants; Maitre & Cook, New Orleans, La.,
plants; Z. De Forest Ely & Co., Phila-
delphia, seeds; John Laing & Co., Forest
Hill, London, S. E., England, plant
novelties; Robt. J. Halliday, Baltimore,
Md., auction plants.INTENDING EXHIBITORS at Chicago
should communicate with Secretary Ed-
win Lonsdale, Chestnut Hill, Philadel-
phia, who will arrange with the local
committee at Chicago. Ample space will
be provided and allotted in due season.
A man will be in charge to receive all
articles; perishable plants will be cared
for and watered until arrival of owners.
Messrs. Kewan, Leonard and Donovan
are the committee in charge at Chicago.THE PLANT TRADE OF 1887.—Our re-
port of the spring plant trade on another
page, giving prices at which plants were
retailed in various cities, should prove
most interesting to the trade, as no truer
index could be given of the state of the
business in the places represented. The
wide difference in the prices obtained for
the same plants in different cities will
probably surprise many, but is still
stranger feature shown by the report is
the difference of the comparative value
placed on different plants. In one city
we find verbenas quoted at a figure con-
siderably higher than pansies, in another
the reverse is noted, while in others the
price for verbenas, pansies and coleuses
is the same; this is true of most other
plants quoted. Surely the cost of pro-
duction cannot be so widely different as
the prices asked for them! And we cannot
believe that difference in quality of the
various plants would warrant such a
variation, especially with the plants noted
above. We believe that a careful study
of our report will cause most of our
readers to put on their thinking cap. A
question asked in last issue was: "Do
you know what your plants cost?" and
from a review of our report we are in-
clined to the belief that but few in the
trade could reply in the affirmative.OILED PAPER.—About five years ago,
as an experiment I covered a greenhouse
80 x 11 feet with oiled paper instead of
glass. The result was very satisfactory;
it did very well in winter and for summer
it has no equal. Fuchsias and pansies
luxuriate under it in the hottest weather,
and it develops the colors of coleus
better than I have ever seen them
under other conditions. Some of our
trucks here use thousands of sashes
covered with the oiled paper; after
three years it is still good. It will
not stand fighting cuts or hail, but
fifteen inches of snow does not affect it.
The material for a sash costs but fifty
cents and any florist can put them to-
gether. Wm. R. Wood,**Wholesale Market.****Cut Flowers.**

Roses, Teas,	BOSTON, June 25,	1.00
" Fancy	"	3.00 to 4.00
Carnations	"	2.00 to 3.00
Lily of the valley,	"	4.00
" Sunlight	"	1.00
Adiantums	"	1.50
Pink Pond Lilies	"	10.00

Roses, Perles,	NEW YORK, June 25,	\$1.00
" Niphetos, Soures,	"	3.00
" Gompers, Mermetts,	"	4.00
" Am. Beauty,	"	4.00
" La France,	"	8.00
" Bon Silence,	"	1.00
Carnations	"	2.00
Lily of the valley,	"	6.00

Roses, Perles, Niphetos	CHICAGO, June 27,	\$3.00 to 4.00
" Mermetts, La France,	"	7.00
" Teas,	"	2.00
Carnations	"	1.00
Candicans	"	2.00
Tulips	"	2.00
Sunlight	"	30.00

Roses, Perles,	PHILADELPHIA, June 25,	4.00
" Niphetos,	"	3.00
" Teas,	"	2.00
" Mermetts,	"	4.00
" La France,	"	8.00
" Gompers, Niphetos,	"	10.00
" Jacques (scarlet),	"	10.00
Outdoor grown hybrids,	"	20 to 25
Hellebores,	"	50
Gladioli (pink),	"	10.00
Callas	"	25.00
Sunlight	"	25.00

Flowers plentiful and business fair for this season
of the year.**Wm. J. Stewart,**

WHOLESALE DEALER IN

CUT FLOWERS,

67 Bromfield St., BOSTON.

Consignments solicited.

We can now supply the

CAPE COD PINK POND LILY

in any quantity at the following reduced prices:

Regular lots at	Per 100	10.00
Transient lots at	"	10.00

W. S. ALLEN,**WHOLESALE FLORIST**

940 Broadway, N. Y.

Price Lists mailed to applicants.

JOHN KEYES,**WHOLESALE - FLORIST**No. 11 West 27th Street,
Near Broadway, NEW YORK.Consignee of the principal growers about New York.
Lilies of the Valley and Lilies at all times.**JOHN J. PERKINS,**

Wholesale and Commission

>FLORIST<69 West 28th Street,
(Telephone No. 673, 39th St.) New York
Branch, 38 S. 16th St., Phila., Pa.
Greenhouses, Cresskill, N. J.**OUR NEW TRADE
DIRECTORY**

Contains over

6,000 Names of (Live)
Florists, nurserymen and seedsmen, in the United
States and Canada.**PRICE ONLY ONE DOLLAR.**

AMERICAN FLORIST CO., Chicago.

Thos. Young, Jr., & Co.,**Wholesale Florists,**

INCORPORATED 1885,

23 West 23d St., NEW YORK.

GEORGE MULLEN**WHOLESALE FLORIST.**

12 CHAPMAN PLACE, (Near Parker House)

BOSTON, MASS.

Orders by Mail, Telephone, Telegraph or Express
promptly attended to. Night dispatch should
be sent if full rate to insure delivery for
early morning trains. Store open from 7 a. m.
10 p. m. Return telegram if order cannot be filled,
or if desired in any case. Mention Am. Florist.**J. C. VAUGHAN,****WHOLESALE CUT FLOWERS**Direct all cut flower orders to cut flower
department

VAUGHAN'S SEED STORE, 42 La Salle St., CHICAGO.

WELCH BROS.,

WHOLESALE FLORISTS.

165 Tremont Street, BOSTON, MASS.

We make a specialty of shipping choice Roses and
other flowers, carefully packed, to all points in
Western and Middle States.Return Telegram is sent immediately when it
is impossible to fill your order.**HAMMOND & HUNTER,**

Wholesale Dealers in

Cut Flowers and Florists' Supplies

57 West 30th Street, NEW YORK.

LaRoche & Stahl,
Florists & Commission Merchants

-OF-

CUT FLOWERS.

1237 Chestnut Street, PHILADELPHIA.

Consignments solicited. Special attention paid to shipping.

Mention AMERICAN FLORIST.

C. STRAUSS & Co.

Telephone 977-3. WASHINGTON, O. C.

Grower of and Wholesale Dealers in

ROSES AND OTHER CUT FLOWERS.

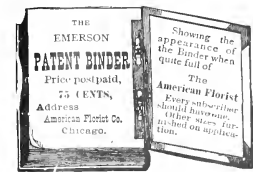
1000 Puritan Planted for coming Winter.

CUT FLOWERSThe choicest Cut Flowers at lowest market rates
shipped C. O. D. Telephone connection, Use A. F. F.
Code when ordering by telegraph. For prices, etc.,
Address,**J. L. DILLON, BLOOMSBURG, PA.****ROSS & MILLANG,****Wholesale Florists.**

NO. 1168 BROADWAY.

(Formerly at 255th Ave.)

Bet. 27th & 28th sts. NEW YORK.



On Seed Trade.

The Seedsmen's Convention.

(Official Report.)

The annual convention of the American Seed Trade association held in Philadelphia June 13, was largely attended, and much enthusiasm was manifested by members. Twenty three names of applicants for membership were reported favorably by the membership committee, the by-laws suspended, and they were unanimously elected to membership.

The new members are as follows: Henry A. Dreer, Z. De Forest Ely & Co., Philadelphia; F. Barteldes & Co., Lawrence, Kan.; A. B. Cleveland, New York; Chas. P. Braslan, Minneapolis, Minn.; H. A. Salzer, La Crosse, Wis.; Wm. Evans, Montreal, Can.; E. V. Hallock, East Hinsdale, N. Y.; E. H. Meadows, Newbern, N. C.; B. B. Whitall, Milwaukee, Wis.; J. L. Childs, Queens, N. Y.; Geo. Truquhart, St. Louis; W. W. Rawson, Boston; G. H. Leahy, West Grove, Pa.; R. D. Hawley & Co., Hartford, Conn.; A. C. Kendel, Cleveland, O.; D. I. Bushnell & Co., St. Louis; Wm. H. Smith, Philadelphia; H. G. Higley, Cedar Rapids, Ia.; B. L. Bragg & Co., Springfield, Mass.; C. N. Tage, Des Moines, Ia.; Samuel Wisner, Mechanicsville, Pa.; Henry Nungesser, New York. The balance of the day was spent upon minor matters of interest to the association.

Upon convening the next morning the members were treated with an interesting address by Jas. J. H. Gregory of Marblehead, Mass., upon "Experimental Stations." The gentleman handled the question with great tact, looking at it upon all sides, and closed with a motion that a committee of three be appointed to correspond with the different stations, with a view to establishing a uniform method of testing, so that all parties will be placed upon a like basis, which was promptly seconded and unanimously carried. The committee was composed of Jas. J. H. Gregory, Marblehead, Mass., chairman; Geo. S. Haskell, Rockford, Ill.; Z. De Forest Ely, Philadelphia.

This was followed by reading of paper on "Selections" by C. L. Allen, of Garden City, N. Y., which had been carefully prepared, and the hints therein will certainly be appreciated by seedsmen.

The afternoon was spent in electing officers for the ensuing year, with the following result: President, Wm. Meggart, Wethersfield, Conn.; first vice-president, W. Atlee Burpee, Philadelphia; second vice-president, Geo. S. Haskell, Rockford, Ill.; secretary and treasurer, Albert McCullough, Cincinnati; assistant secretary, C. L. Allen, Garden City, N. Y.; Executive committee—Jas. Vick, Rochester; John Potter, Jr., Boston; J. C. Vaughan, Chicago; Jas. Reid, New York; J. Bolgiano, Baltimore.

The balance of the day was spent in discussing topics of general interest to the association, among which was the recent ruling by the secretary of the treasury affecting the duties on seeds, which after being thoroughly discussed was referred to a committee of five, with power to act, to give the matter a thorough investigation, and if possible to have it righted. The agricultural papers then came in for an investigation; some as to the discrepancies between their published and actual circulation, and others who were making it a practice of free distribution of seeds, both as premiums and otherwise, to the injury of the seedsmen who were advertising in their columns.

Among other subjects that were brought up and discussed was the lack of uniformity of weights per bushel which now exists in the different states or markets. As the weights are regulated by the laws of the different states, it was the sense of the association that they quote all grass and field seeds hereafter, both at wholesale and retail, by the pound and hundred pounds.

After disposing of the unfinished business during the afternoon, the new officers were installed, and the convention adjourned to meet in Chicago the second Tuesday in June next. But meanwhile the local members had invited the entire association, together with their friends, for a ride through the park and general love-feast at Belmont mansion which certainly was very enjoyable and appreciated by all as a most pleasant wind-up.

ALBERT MCCULLOUGH, Sec'y.

A vote of thanks was extended to Mr. J. H. Gregory for his valuable paper, and to James Vick for his efforts as chairman of committee on reduction of postage; also to the local Philadelphia seedsmen—Messrs. Burpee, Johnson & Stokes, Ely, Dreer, Maule and Smith—who so liberally provided for the pleasure and entertainment of the visiting seedsmen.

The Government Seed Shop.

The New York *World* of June 16 devotes a column to airing the operations of the department as given by Philip L. Reeves of New York, who is stated to have spent several months investigating the action of Commissioner Colman in the conduct of his office. In addition to some very serious accusations as to his connection with two recently established seed houses and exclusive patronage extended to them amounting to some \$70,000, the *World's* article calls attention to the following, showing how little regard is paid to either the spirit or letter of the law in this regard: "A condition of affairs not by any means new or unknown to members of the seed trade:

The statutes authorizing the establishment of the department of agriculture provide that the commissioner 'shall collect new and valuable seeds and plants; that the collection and distribution of seeds shall be confined to such as are rare and uncommon to the country, or such as can be made more profitable by frequent changes from one part of our country to another. The purchase or propagation and distribution of trees, plants, shoots, vines and cuttings shall be confined to such as are adapted to general cultivation and to promote the general interests of horticulture and agriculture throughout the United States.

From the following statement, which Mr. Reeves compiled from the list of purchases as shown in the vouchers in the controller's office, it would appear that little respect has been paid to the law regarding that section providing for the purchase of seeds that are new and rare.

	Amount purchased.	Percent of old varieties.
Asparagus, lb.	200	100
Beet, lb.	7,600	78
Broom corn, bush.	1,218	100
Corn (sweet), bush.	100	100
Celery, lb.	900	100
Landholder, lb.	40	100
Cress, lb.	80	100
Corn salad, lb.	71	100
Collards, lb.	25	100
Carrot, lb.	2,300	100
Cabbage, lb.	8,262	95
Cucumber, lb.	1,113	98
Egg plant, lb.	160	99
Grass seed, lb.	280	96
Kale, lb.	130	100
Spinach, lb.	2,000	93
Lettuce, lb.	28	100
Melon, lb.	4,380	35
Monte-si, turnip, lb.	100	100
Onion, lb.	4,700	100
Okra, lb.	325	100
Peppercorn, lb.	170	100
Pumpkin (field), bush.	100	100
Parship, lb.	1,000	100
Parsley, lb.	400	100
Peas, bush.	9,147	99
Radish, lb.	2,400	100

Squash, lb.	1,730	100
Spinach, lb.	3,350	45
Turnip, lb.	1,000	95
Tomato, lb.	1,310	100

DE COU & Co. succeed T. M. Metcalf, the well-known St. Paul seedsmen.

NEW YORK.—Henry Nungesser, dealer in grass seeds, has removed from 189 Lewis street to 65 Pearl street.

S. Y. HAINES has signed with Northrup, Braslan & Goodwin Co., at Minneapolis. Hurrah for the W-L-I-D-west!

MR. JAMES REID retired from the firm of Peter Henderson & Co., New York, June 7. The business will be continued by Peter, Alfred and Charles Henderson, under the old firm name.

Chicago.

At present no fly of the valley is to be had in this market.

Sweet peas are in and are retailed in bunches of twenty-five at 25 cents.

Out door Jacques are about over and roses of all kinds are rather inferior in quality.

The poor quality of the flowers now in the market makes it difficult to fill an order in first-class shape.

The pretty native *Cypripedium* specabile is now to be had in quantity, and is retailed at from 60 cents to 75 cents a dozen.

Peter Devine is making a large boiler for J. T. Anthony of the flat top style, but stay bolted to stand pressure, and to be used for steam.

The Swedish residents of the city are preparing to erect a \$50,000 statue to the great Swedish botanist Linnæus, in Lincoln Park. It will be a fac-simile of the one in Stockholm.

Flowers are at present retailing at the following prices: Perles and Niphetos, \$1; Bons, \$5; Mernets, \$1.50; out-door Jacques, \$1.50; carnations, 25 cents; candidum lilies—out-door stock, \$1.25 and gladioli, \$2 a dozen.

In response to a query as to why so many of the local florists presented such a jaded appearance and smelled so strongly of liniment, it was learned that two mines composed of florists recently met in a sugarcandy game of base ball. No one was killed outright, though three umpires were disabled. Score, 41 to 30.

The floral decorations at the banquet given to the Boston commercial club at the Grand Pacific hotel by the Chicago commercial club were elaborately arranged by Mr. Andrew Miller with W. D. Allen, the State street florist. The main design was placed at one side of the room and was singularly appropriate to the occasion. A veritable Chicago grain elevator 54 inches long, 21 inches wide and 4 feet high, with sides of white carnations, roof of ivy leaves and windows of pansies framed with alyssum, with "Chicago" lettered across its front, was loading grain into a ship of roses which lay in the river of sprinkled tin-foil at its side; the stern of the ship bore the name "Great West." On the mossy banks of the other side of the river was a floral fac-simile of the emblem of Boston's commerce. A female figure in a magnificent robe of Mornet roses, defined at the corsage with Perles, the face and shoulders of white carnations, and the hair of *Safranos*, rested its right hand on a capstan of carnations and its left on a wheel of roses. The figure was a most excellent piece of work, the draping of the robe especially being most graceful and natural.

Cincinnati.

A chaste funeral piece made by Huntsman was a broken column, the base being entirely formed of pond lilies.

Harry Sunderbruch says that during the latter part of June he found roses as hard to get as they were in December.

A millionaire's bride in Clifton carried a bunch of sweet pea blossoms when she was married this week. It was a Mt. Auburn girl who gave that flower favor as a bridal bloom here.

An East Walnut Hills lady gave Mrs. Grundy a chance to talk a few days ago. At a luncheon she gave prominence to a great vase of field clover in bloom. As it gave society something to talk about, the hostess was satisfied.

The simple decorations at a recent dinner included a flat of ox-eyed daisies in the center of the table and a boutonniere formed of two Marguerites at each plate. No florist would rejoice at the sight, but the effect was not bad.

Local florists have been up to their eyes in business. Commencement season made a run on flowers not equaled in years. Very few original designs were ordered, and the demand was confined to baskets and easels ranging in value from \$1 to \$10.

The bouquet carried by one of the June brides, was a beauty. A bunch of orchids formed the center. About them was a row of stephanotis, then another of jasmynes, and lastly a border of asparagus vine and Bride roses.

A "hily wedding" was an event of June on Mt. Auburn. The mantels were banked with lilies and the bridal table was decorated with a center flat of lilies, with crescents of the same at either end.

Critchell designed a center piece for a recent Masonic dinner that has been chosen as the jewel of the Knights Templar commandery that gave it. The name, "Trinity," gave opportunity for a suitable design—a triangle upon three open circles, forming a perfect trinity. Carnations, white roses and pansies were the flowers used.

Mr. Henry Probosco, of Clifton, the gentleman who handsomely entertained many delegates to the Cincinnati convention in '85, was recently married to Miss Grace Sherlock. The couple have started on an European tour.

REN MULFORD, JR.

FALL : CATALOGUES

Printed in a superior manner, with plentiful use of fine cuts of **BULBS** and other seasonal stock, by

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The : Picturesque B. AND O.

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The best device ever invented for laying putty. With this you can make old leaky sash perfectly tight without removing the glass. It will do the work of five men in bedding glass.

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For Winter Flowering.

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Begonia Metallica. Abutilon Thompsonii Plena.

Write us if you want any of the above, as all the plants are strong, in fine condition and sure to please.

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A large stock of selected

ROMAN HYACINTHS, LILUM HARRISII, FREESIA REF. ALBA, and a fine line of 15 varieties forcing Narcissus, dbl. and sgls.**READY SEPT. 1 to 5,**

Lilium Candidum, large bulbs, also a full assortment of Dutch Hyacinths, Tulips, Crocus, &c., from the best Holland growers. Select florists seeds, Pansy, Primula, Cineraria, &c. Send for Price List, now ready.

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If desiring really first-class roots at moderate prices, write for Price List.

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Hyacinths, fine mixed, per 100, \$3.00.

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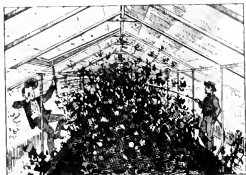
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Watering.

Watering and ventilation are two essentials which will have to be dealt out with a liberal hand for some months. Keep plants potted up or mulched, or you will have to spend the bulk of your time with the hose in hand if you expect to avoid a set-back. Plunging pots in soil is a great saving of water. In any event don't let a plant lay down for lack of water under any circumstances, unless you wish to rest the plant.



Is your supply of water adequate? If not, don't build that house you have planned, but devote your cash to procuring an abundant supply of water. Put the houses you already have in perfect condition rather than build more, and above all, don't be pinched for water if there is any means of getting a good supply without expending more than the place is worth, and in the latter case you had better move or go out of business.

Trade Notes.

CRAWFORDSVILLE, IND.—D. W. Cox will soon build a new rose house 60 x 22.

MILWAUKEE.—John Zipnick, a recent arrival from Germany, has started a greenhouse business in the Seventeenth ward.

NORTH SAANICH, BRITISH COLUMBIA.—Sales of plants this spring were larger than last year, the principal demand being for roses, carnations and geraniums. Plants in 4-inch pots sold at from \$3 to \$5 a dozen.

WILLSBORO, PA.—Decoration day trade was but a slight increase over last year. Fifty per cent. more loose flowers as compared with designs. The sale of shapely plants in bloom was largely in excess of last year.

CLEVELAND.—Plant sales were slacker and more brisk, and florists firmer in prices than in former years. There was a very large demand for geraniums, and all other bedding plants sold well. James Eadie will rebuild five houses this summer.

COHOS, N. Y.—The plant trade has been remarkably good this year. Decoration day trade was also larger, both plants and flowers being in better demand than formerly. School commencement demand has been very good, with baskets and horseshoe designs as the favorites.

FT. WORTH, TEXAS.—On the occasion of the annual convention of the Texas Press association in the Ft. Worth opera house on the 24th inst., the stage was handsomely decorated to represent a woodland scene. Above this was the national flag, with a floral sword and pen gracefully entwined. Mrs. J. O. St. Clair was the designer.

MINNEAPOLIS, N. Y.—The Queens county annual fair held June 15-16, was visited by the usual large crowd. For plants and cut-flowers, premiums were awarded to Hallock, Son & Thorpe, R. P. Jeffrey & Son, Geo. A. Bacus, S. L. M. Barlow, A. Wray, William Falconer, Fred. Boulton, W. A. Burgess, Mrs. E. Titus, Carrie Albertson, Alice Fifth, H. T. Woodhull, R. Lewis, Mrs. S. V. Searing, Mrs. A. Houghtland, Lillie Jerome, E. Willister, R. Hicks and Annie Lawrence.

YOUNGSTOWN, O.—The increasing demand for plants for cemetery and home decoration has been ahead of anything we have ever experienced here, owing to the early opening of the season. Sales began early and kept up steadily. While the demand for cut flowers on Decoration day was fair, still I do not think there was any increase over former years. The increase altogether was for plants in flower for cemetery decoration. While our demand for vegetable seeds was not much more than former years, the increase in our sales for flower seeds was 100 per cent. over any former year. We had also a demand for more variety than formerly.

INDIANAPOLIS.—Decoration day was unusually quiet this year. The weather probably had a bad effect, as it rained all the forenoon. There was an increase in the call for set designs. Plants sold well, also vases, rustic and wire stands, which are used to a considerable extent in this city. The general spring trade was good. The committee of the Society of Indiana Florists have arranged the list of premiums to be offered at the coming fall show, and will be mailed to any applicant. A local society was organized May 16, with Wm. Langstaff president, and Wm. G. Bertram secretary and treasurer. The local florists are taking advantage of the benefits of the Florists' Hall association, and protecting themselves by hail policies. We have had no hail this season. Chas. Rieman has his new place nearly finished. A Wiegand is moving from his old corner to his own property.

SMILAX.

30,000 extra strong young smilax plants for summer planting, for sale cheap, from 24-in. pots, \$3.00 per 100; 24-in. pots, \$4.00 per 100; \$5.00 per 100.

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SPECIAL LOW OFFER.

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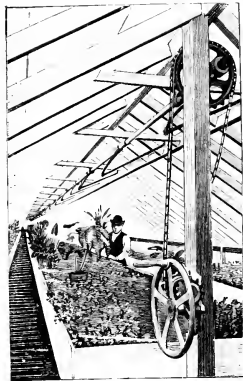
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Without a rival either in Cost, Speed in operating or Security in case of storms.

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Simple in construction, perfect in operation.

Write for prices and circulars to

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Being the representatives in the U. S. for Messrs.

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The great English Rhododendron growers, we are prepared to furnish Rhododendrons of all sizes and in any quantity, at prices lower than ever before offered in this country. Orders now solicited for spring delivery. Prices on application.

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Carpet and Ornamental Flower Beds.

With many it is a difficult task to lay out a carpet bed, or fancy design on the lawn, and perhaps more difficult to choose the proper plants to harmonize, so as to give the best effects. The object of these drawings is to assist gardeners and amateurs, and to enable them to choose the proper plants for their work. It is expected that this book will supply a long felt want, as it is the first and only publication entirely devoted to Fancy Flower Bed designs. This, our SECOND EDITION, consists of over 100 designs, finely engraved, on good paper, nicely bound, sent by mail to any address on payment of Price, \$3. GEO. A. SOLLY & SON, SPRINGFIELD, MASS.

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Three New Patterns, Low Prices, Good workmanship. Twenty-one other varieties.

Length of Barrel, 18 in.; Diameter, 1 1/2 in.



No. 10.

No. 10 Conical Valve Syringe, full size, two spray roses and jet. Note attachments.

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These syringes are made with special reference to those who desire a low priced working syringe. Price \$3.00 each, including our name and address on the barrel. Manufactured by

ROBT. T. DEAN & CO.,
12th & Burwood Sts., Philadelphia, Pa.

Mention American Florist.

Trade Notes.

MARION, IA.—Memorial day trade better than ever before. Flowers all cleaned out. Plants went slow.

SPRINGFIELD, O.—Mr. J. M. Good has severed his connection with C. A. Reeser, of this city, and will start into business for himself.

LAKE GENEVA, WIS.—The firm of Thos. H. Price & Co. was dissolved May 12. Henry Paul retires and the business will be continued by Thos. H. Price.

INDIANAPOLIS, IND.—The Society of Indiana Florists will give a chrysanthemum show and general plant exhibition Nov. 7-12. A liberal premium list is being arranged.

COLUMBUS, O.—Mr. John B. Romans will add 2,500 feet of glass to his place this season, for cut flowers exclusively. Sales are increasing every season, and prices were fully up to last year.

BOONVILLE, MO.—The Central Missouri Hort. association held their quarterly meeting here June 3-4. A number of very interesting papers were read and a fair exhibit of horticultural products made.

HARRISBURG, PA.—More than 50,000 plants are this year bedded on the grounds of the state capitol. The arrangement by state florist Loban is most excellent, each year showing an improvement over previous seasons.

PHILADELPHIA.—Lonsdale & Burton, of Chestnut Hill, have dissolved partnership. Mr. Burton will continue the old place, and Mr. Lonsdale will start a new place on an adjacent property. Mr. M. M. Bayersdorfer recently sailed for Europe.

DANVILLE, ILL.—Plant trade better than last year; cut flower sales also show a small increase. A. Giddings will enlarge his rose house and put in an additional boiler this summer. W. F. Bennett and Am. Beauty are doing finely. Her Majesty produces excellent fishing poles, the Bride is a darling.

NORFOLK, VA.—We have two Memorial days here—one for the Federals and another for the Confederates. For the latter we had the most demand, about equally divided between designs and loose flowers. The sales for both days were much greater than heretofore. We sold but few plants, however.

BALTIMORE.—To raise money for a horticultural library the florists of the city contributed plants which were sold at auction June 7 and realized a considerable sum for the purpose. Some plants brought very high prices at the sale. Mr. Robert Patterson a florist of Waverly was accidentally drowned May 23. He leaves a widow and six children, all of whom are grown.

FOR SALE.

25,000 Azalea Indica,
15,000 Camellias.

Orders for fall delivery now booked. For descriptive catalogue address,

C. H. JOOSTEN,

Importer of Plants, Bulbs & Seeds,

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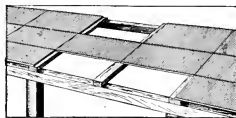
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They will last a lifetime and you will not be troubled with fungus from rotting wood. They transmit bottom heat better than wood.

Price, \$22.50 for 1,000 sq. feet of surface.

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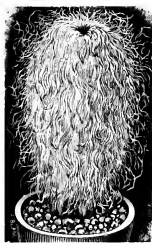
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Am booking orders now for fall delivery of the new **Colum J. C. GORDIE**. Also plants of **Panicles** for planting in cold frames. My Panicles are superb, being a selection of the finest strains in the world.

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A. BERT BENZ, Douglaston, N. Y.**DAHLIA CAMELLIAFLORA ALBA**

Per Doz. per 100
New dwarf, pure white, 2½-inch..... \$2.00 \$15.00
Extra strong plants, 4-inch pots..... 3.00 20.00
Double Chinese Primrose stools in 4 and 5
4-inch pots..... 3.00 20.00
Smilax, strong plants, 2½-inch pots..... 1.00 6.00
La France Rose, 4-inch pots..... 2.00 12.50
" " 2-inch pots..... 5.00

ALTERNANTHERAS.

Three best bedding vars. \$1.00 per 100; \$5.00 per 1,000.

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TERRE HAUTE, IND.

Sulphur Tobacco Soap.

UNIVERSAL INSECTICIDE.
FOR FLOWERS, TREES, BUSHES, VEGETABLES, AND ANIMALS.

Sample by Mail.

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ESTABLISHED : ORCHIDS.**40,000 FEET OF ORCHID CULTIVATION.****Special Offers for Three Months.**

All the best flowering and best paying sorts in the following collections:

\$15.00 Collection, fifteen good plants, five varieties.
25.00 " twenty-five good plants, ten varieties.
35.00 " thirty-five " fifteen varieties.
50.00 " fifty " twenty-five varieties.
100.00 " one hundred and ten " fifty varieties.

SIEBRECHT & WADLEY,

Rose Hill Nurseries,

NEW ROCHELLE, N. Y.**NARCISSUS AND DAFFODILS**

Thomas S. Ware has pleasure in drawing the attention of the American public to his very extensive and most complete collections of these, which covers an extensive acreage, for sale this season including all the popular Forcing and Decorative varieties as well as the choice **MODERN HYBRIDS**.

Clematis in best varieties.**Industry Gooseberry.**

Priced descriptive catalogue of these and many other choice

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Messrs. I. C. Wood & Bro., Fishkill, N. Y., have used "Grape Dust" to considerable extent. Mr. Wood says:

"We find it to do the work nicely. It leaves the foliage clean and is cheap."

Grape Dust Kills Mildew. Try It.Address, **SLUG SHOT, FISH KILL-ON-HUDSON, N. Y.****SPECIAL OFFERS**

For Fruit and Ornamental Trees, Shrubs, Small Fruits, Bulbs and other plants solicited by

FINK & CO., NURSERYMEN.Aparado 484. **CITY OF MEXICO, MEXICO.****SPHAGNUM MOSS,**

Especially for Florist use. \$2 per bale, Peat \$1.25 per bbl. Sheet or Log moss, \$2 per bbl. Pitcher plants, a Wisconsin novelty, \$2 per doz. Lycopodium in its season at lowest prices per bbl. or ton.

Z. K. JEWETT, Sparta, Wis.
Mention American Florist.

**Seedsmen, Florists, Nurserymen,
IMPORTING BULBS**

See our advertisement on page 357.

R. VAN DER SCHOOT & SON.

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Moat, Oyster Shell, **GRAHAM FLOUR**, and Corn in the **\$5.00 HAND MILL**. If Wilson's patent, 100 per cent more made in keeping. **POULTRY**.

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The Street Fakir.

The fakir has at last received notice from the daily press, as witness the following from the New York correspondence of the Philadelphia daily Press.

It would seem the most difficult thing in the world to perpetrate fraud in the sale of fresh flowers, but the street dealers here are up to some cunning device. For ten cents the other morning I purchased a bunch of what looked like fresh roses from a basket man at the end of the Brooklyn bridge. Fifteen minutes after I noticed a sudden drooping of the flowers. On investigation I found that every seemingly compact rosebud had a wire run through the centre and bound to a slender stick. The curled edge of the faded leaves had been chipped off and the wire run through to hold them together. An hour later the seemingly beautiful bunch of roses was a faded, drooping mass of color. These street-dealers have the leftover stock of flowers, clip off the dead leaves and keep the rest hidden in a pan of water until a customer comes along. They are scattered over all the streets of the city on bright, sunny days, and especially in the district where the dry goods and other stores for women are located. Most of them sell out every day and their profits average \$5 easily. On Sunday they run much higher, for nearly every girl wants a bunch tucked in at her waist. Mayor Hewitt tried to stop this flower peddling business on Sundays and his efforts were highly successful for awhile, as in his endeavor to enforce the Excise laws. The peddlers established guards and sold when the police were not looking. Later, however, they have dispensed with these look-outs and sell as openly as ever.

In this connection we call to mind a statement of a German florist as to the gigantic nerve possessed by these outcasts of society. "De rascal he come in und ask me eef I you'd gif him berrnission to sthand in vront of mine store. Great Himmel, but I vash so baralyzed dot I couldn't spheak!" and the speaker's face turned red at the recollection.



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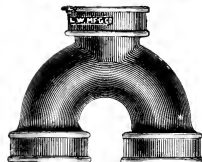
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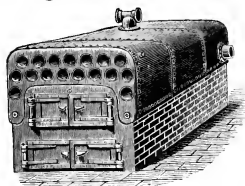
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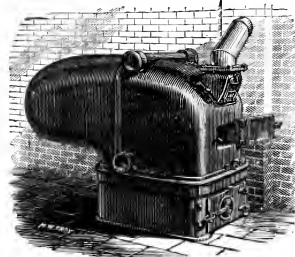
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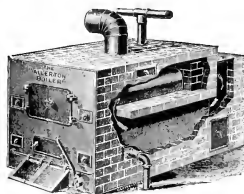
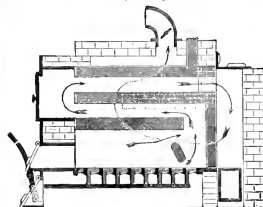
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Index to Advertisers.

Advertising Rates, etc.	473
Allen, W. S.	473
American Florist Co.	473
Baltimore & Ohio R.R.	473
Bayard, M. M. &	473
Bayard, M. M. &	473
Beverly & Co.	473
Benz, Albert.	473
Blanc, A.	473
Boysen, James E.	473
Brackner & Co.	473
Braque, L. B.	473
Budenberg, Herman.	473
Butz, Paul & Sons.	473
Carney, J. D.	473
Clark Bros.	473
Coles, W. W.	473
Croscup & West Eng.	473
Cy.	473
Dalb, C. W. & Co.	473
Dakin, Robt. T. & Co.	473
Deasmond, Wm.	473
De Veer, J. A.	473
Devine, Peter.	473
Dickinson, Albert.	473
Dixon, Alex. & Son.	473
Hilson, J. L.	473
Dresser, Henry A.	473
Elliott, R. A. & Co.	473
Ellis, Bros.	473
Exeter Machine Wks.	473
Farquhar, R. & J.	473
Fink & Co.	473
Forest Glen Floral Co.	473
Garfield Park Rose Co.	473
Gasser, J. M.	473
Giddings, A.	473
Griffith, Jas.	473
Gronoway, Henry A.	473
Hales, H. W.	473
Halliday, Robt. J.	473
Hallcock & Thorpe.	473
Hammond & Hunter.	473
Hammond's Sign Shop.	473
Harold, Thos. U.	473
Hay & Prentice Co.	473
Heintz, John G.	473
Henderson, Peter & Co.	473
Hennecke, C. & Co.	473
Herr, Albert.	473
Higley, Henry G.	473
Hill & Co.	473
Hilborn, W. T.	473
Hippard, E.	473
Hitchings & Co.	473
Hosker, H. M.	473
Horan, James.	473
Hulsebosch Bros.	473
Ives, J. H.	473
Jansen, Ed.	473
Jewett, Z. K.	473

Joosten, C. H.	473
Kayes, John.	473
Krafft, E.	473
Kuehn, C. A.	473
Laing, John & Sons.	473
Lamborn, Lora L.	473
Lalliche & Thos.	473
Lockland Lumber Co.	473
McAlister, S. E.	473
McFarland, Horace.	473
Michel Plant & Seed Co.	473
Miller & Thos.	473
Monon Route.	473
Now Polman.	473
Mott, J. L. Iron Wks.	473
Mullen, Geo.	473
Myers & Co.	473
Nanz & Neuner.	473
Smith, W. C. & Bro.	473
Perkins, John J.	473
Perkins, J. N.	473
Plenty, Joseph.	473
Price, Charles.	473
Quaker Machine Wks.	473
Radian, Wm.	473
Rice & Whitacre.	473
Riemer, Frederick.	473
Robley Farm.	473
Roller, Aug. & Sons.	473
Ross, M. G. Co.	473
Ross & Milling.	473
Schmidt, Aug.	473
Schalt, Jacob.	473
Scollay, John A.	473
Seeger Bros.	473
Sellers & Co.	473
Siedred & Wadley.	473
Situations, Wants etc.	473
Smith, Chas. & Son.	473
Snow, Capt. Chas. H.	473
Wolf, Geo. A. & Son.	473
Stefels, N.	473
Stewart, Wm. J.	473
Strains, C. Co.	473
Sturtevant, E. D.	473
Thompson, J. S. & Co.	473
Ude, J. W.	473
Van der Schoot, R. & Son.	473
Van Luchem, J. J.	473
Vandusen, J. C.	473
Vandusen, J. C.	473
Ware, Thos. S.	473
Weathered, Thos. W.	473
Welch Bros.	473
Whitfin Pottery Co.	473
Wilson Bros.	473
Wilson, Wm. C.	473
Wolf, L. M. Co.	473
Young, Thos. Jr. & Co.	473

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THE AMERICAN FLORIST



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Vol. II.

CHICAGO AND NEW YORK, JULY 15, 1887.

No. 47.

THE AMERICAN FLORIST

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Entered as Second-class Mail matter.
Published on the 1st and 15th of each month by
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GENERAL OFFICES, 51 La Salle Street, Chicago.
EASTERN OFFICE,
Room 81, Vanderbilt Building, New York.

All communications should be addressed to the
general office at Chicago.

SOCIETY OF AMERICAN FLORISTS—Robert
Craig, Philadelphia, Pres.; J. C. Vaughan, V.
Pres.; M. A. Hunt, Treas.; Edwin Lonsdale,
Chestnut Hill, Philadelphia, Sec'y. The third
annual meeting at Chicago, August 16, 17 and
18, 1887.

MAKE A FEW NOTES to drop in the
question box at the convention. There
are many items that can be profitably
talked over which may not occur in the
regular essays or discussions.

IT WILL greatly facilitate business at
the convention if members of the society
will forward the amount of their dues
(\$2.00) to either Treasurer Hunt or Sec-
retary Lonsdale now, thereby avoiding
the rush for receipts and badges at the
meeting.

A WESTERN WHOLESALEMAN states that
nearly every one of his florist customers
met with during a six weeks' trip through
the west, as well as those in correspond-
ence with him lately, indicate their in-
tention to be present at the Chicago
meeting.

INTENDING EXHIBITORS at Chicago
should communicate with Secretary Ed-
win Lonsdale, Chestnut Hill, Philadel-
phia, who will arrange with the local
committee at Chicago. Ample space
will be provided and allotted in due
season. A man will be in charge to re-
ceive all articles; perishable plants will
be cared for and watered until arrival of
owners. Messrs. Keenan, Leonard and
Donovan are the committee in charge at
Chicago.

SUBSCRIPTIONS for the AMERICAN
FLORIST may be left with any of the
following:

Baltimore,
J. H. Haldy.
Boston, W. J. Stewart.
Buffalo, Daniel B. Long.
Cincinnati,
Harry Sunderbruch.
Cleveland, O.
Mrs. E. G. Campbell.
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J. Breitmeyer & Sons.
Hamilton, Ont.,
Weidner Bros.
Harrisburg, Pa.,
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J. R. & A. Murdoch.
St. Louis, Michel Plant
& Seed Co.
San Francisco,
Thos. A. Cox & Co.
Toronto, Ont.,
J. A. Simmers.
Washington, D. C.,
L. Schmid & Sons.

Programme of the Chicago Meeting.

In addition to President Craig's ad-
dress, which is sure to be both interest-
ing and instructive, papers will be read
upon a variety of subjects which have
been carefully selected to suit all tastes
and sections of the country. Ex-Presi-
dent John Thorpe's essay on "Hybridiza-
tion" alone will amply repay those who
have the good fortune to listen to it. C.
L. Allen will present a paper on "Fun-
goid Diseases." Mr. Allen having made
a study of these enemies to plant life, a
thoughtful paper may with confidence
be looked forward to. Mr. H. A. Sie-
brecht will discourse on "Orchids," and
there is no better authority commercially
anywhere. The subject of "Business
Methods" will be opened by Mr. F. R.
Pierson. It goes without saying that the
subject will be handled intelligently.
"Summer Propagation of Roses, with a
List of the Best Varieties, with Notes on
Culture," will be introduced by Mr. E.
G. Hill, whom it is hardly necessary to
say here is one of the best authorities on
the rose in this country. "Roses on
Stocks," by Mr. Charles Anderson, cov-
ering the question of whether "worked"
roses or roses on their own roots are the
better for winter blooming, promises to
be of much interest. The subject has oc-
cupied Mr. Anderson's mind for some
time, and on this occasion we may all
profit from the result of this observant
and practical florist's experience. Mr.
Ernst Assmus will devote twenty minutes
or so to the "Forcing of Bulbs and
Tubers," and this will, no doubt, prove
to be one of the most valuable papers
read before the meeting. "Forcing
Hardy Shrubs" will be handled by Mr.
Jackson Dawson. Mr. Dawson is one of
those we might appropriately term the
"old school" of gardeners. His knowl-
edge of horticulture in general is second
to none in the country.
"Art in Floral Work" will be prepared
and read by Mr. J. W. Elliott. Mr.
Elliott has a national reputation as a
man of taste and ideas. His paper will
be sure to command attention. Mr. W.
R. Smith, curator at Washington, will
present a paper, the subject of which has
not yet been announced. Something of
sterling merit is expected. "The Retail
Flower Business" will have for its ex-
ponent Mr. J. M. Jordan. No horticul-
turalist is better calculated to render so
good an account of this important branch
as Mr. Jordan. Mr. John M. Hughes will
read a practical paper on landscape gar-
dening, which will undoubtedly be a treat.
The "Question Box" is a feature
which must not be overlooked, for ideas
are oftentimes evolved from some of the
most commonplace questions. The dis-
cussions which will follow each essay will
bring out much additional information.
The all-important subject of "Heat-

ing" will be reviewed by an expert, and
though the subject may not be settled, it
is expected that light will be thrown on
some points which have hitherto re-
mained rather dark to the average in-
vestigator.

The exhibition, where all the new and
improved appliances may be seen, is
worth more to any live florist than can
be computed in dimes and dollars.

With such an interesting and varied
programme, it will be strange indeed if
the attendance at this meeting is not
larger than any previous one, and every
present indication is conclusive that such
will be the case. If you want to see your
friends, meet them in Chicago next
month.

The railroads generally have offered a
rate and a third; that is to say, a full
fare must be paid to Chicago, and one-
third of full fare for the return trip, on
the presentation of a certificate duly
signed by the secretary at the meeting.
Take note. When purchasing tickets
for Chicago, get the local ticket agent's
certificate, with railroad stamp affixed,
certifying that full fare has been paid to
Chicago. This is necessary in case the
members or delegates for any reason for-
get or fail to produce regular certificates.

The Education of Florists.

BY E. A. W.

In the *Century* for June, amongst the
"Topics of the Time," is an article en-
titled "Landscape Gardeners Needed for
America." The few words that are writ-
ten under that heading are admirably
calculated to awaken thought, and should
be well considered by every intelligent
gardener in this country.

Presumably the writer is one who is
unaccustomed to the practical routine of
garden work, probably entirely igno-
rant of all that pertains to the duties of a
skilful gardener, yet one interested in
and competent to criticise the topic dis-
cussed. The statements are made that
there are very few landscape gardeners
in this country—that the majority of
those calling themselves such are but
gardener-artisans; in other words, that
most of the gardeners of the present are
not educated up to the standard required
for any artistic work, that their ideas
are crude and undeveloped, and that
they are merely skilled laborers, trained
only in the practical part of their business.

A discussion of this point may seem
somewhat out of place in a paper con-
ducted solely for the practical education
of florists, since this objection, with rea-
son, may be urged: Of what value is
landscape gardening to the florist who
depends entirely upon the sale of cut
flowers and plants for his living? This
article is not written for the pur-
pose of arguing the question; each man
must decide for himself as regards the

development of his business. Instances are often seen where a man carves out an entirely new path altogether distinct from the beaten track pursued by the majority, and soon bringing the zealous worker to the apex of fame and fortune. If there is a constant demand for the work of landscape gardeners, and for the men competent to meet satisfactorily the requirements of this demand, surely the subject is worth the attention of the thinking men in our profession, and calculated to arouse a desire to enter this path which stands invitingly open, offering every inducement to persevering men.

The primary object of the writer, however, is to invite the opinions of the readers of the *FLORIST* as to whether the education and, consequently, the mental training of florists are not very limited, and if so, to ascertain if means could not be devised to remedy this deficiency.

That the average education of gardeners is not very extensive, and that as a rule their knowledge is confined entirely to the practical part of plant-growing, must be apparent to all. A remark of Mr. May's in a former number of the *FLORIST*, may be quoted as an illustration, *i. e.*, that "gardeners are more accustomed to wield the spade than the pen." The quotation is from memory, and may not be verbatim. The idea, however, was the same as here expressed. The pages of the *FLORIST* also furnish another proof of this statement. Amongst the four or five thousand florists among whom the paper circulates, how few appear disposed to contribute matter for the benefit of their co-laborers. This neglect may proceed from indifference as much as from inability; still it will probably be safe to assume that the hands accustomed to the use of the spade are often incompetent for labor with the pen. If further proof is needed, it is only necessary to attend some of our horticultural meetings, and witness the considerable intelligence in attendance upon these meetings. Upon entering into conversation with any of them the mind is impressed by their thoughtful consideration of all subjects connected with horticulture. This is not to be wondered at, for the nature of a florist's business necessitates thought; he must think and plan ahead if he would succeed. To be constantly preparing for the morrow is the only way to insure complete success. But when in these meetings we hope to hear from our friends publicly, we are disappointed, and seldom is the ear gratified by a full and free discussion of subjects interesting to all gardeners. From what proceeds this reluctance to speak, if not from a consciousness of a limited education?

But no man is to be blamed for the effect of causes over which he can have no control. The majority of gardeners in their youth are not given the opportunity to reach a high standard of intellectual attainment. Commencing manual labor early in life, all incentive to study appears to vanish, and the greater part are content with becoming efficient "gardeners-artisans," well fitted to undertake the culture of plants, but utterly indifferent to all that pertains to the culture of the mind.

Horticulture naturally refines and elevates those whose business it is to study her ways, and unless a man who does so has become utterly debased, he will be sure to be a lover of nature in all her moods, and a broad and enlightened thinker.

Gardeners generally are men of large hearts, kindly sympathies, and genial in their social intercourse. Educated by their avocation to observe the needs of science, continual foresight; striving constantly to improve and develop the flowers which tend to make the earth so pleasant, it naturally follows that men educated in this way will always be interesting companions, able to converse intelligently upon many topics, and possessing considerable information to impart to others. Fitted thus by daily labor to shine in society and to attain a high place amongst the world's workers, the facts still remain that we are poor speakers, poor writers, and poor scholars. With but a fund of material to draw from, how few are there who write! Amongst the thousands of books published every year how many are written by gardeners? Each day brings some fresh fact discovered by zealous investigators, forming another addition to the stores of knowledge accumulated through centuries. Do we gardeners contribute our share of this information, or rather, are we willing to profit entirely by the gleanings of others?

If, then, we are conscious of many deficiencies in our own education, what are we doing to elevate the standard of those who come after us? Is there any special effort made anywhere to educate the young gardeners of the present in those branches specially adapted to their needs? There are schools for engineers, schools for chemists, schools for artists, schools for various trades, but where are the schools for gardeners? Because no strenuous effort has been made in the past to acquire greater proficiency, we should not be prevented from trying to establish a broader culture for the future. Chemistry, botany and geology are all essential aids to a gardener, enabling the painstaking student to perform many things for the accomplishment of which an ignorant man must depend upon others. Only a very few of our number can classify and name all the flowers and plants which are brought to their notice; a still smaller proportion are able to analyze the soils which they prepare and use, or have any accurate knowledge of the proportions that are needed of the different elements necessary for the welfare of plants; and as to those competent to teach of the structure of the crust of the earth and the formation of the soil, the number is exceedingly limited.

When we observe the rapid strides made by others in this matter of education, and compare their progress with our apathy, we certainly ought to become more energetic, more willing to devise some way whereby we can assist the younger generation. There does not appear to be a very strong desire on the part of these youths and young men, working in various gardening establishments, for any extended course of study. They are content with things as they find them. Should, however, inducements be held out and opportunities offered for study, an improvement might soon be manifest. When those that are older and more experienced show no desire for greater knowledge, we cannot expect those that are younger to do much better.

It is to be hoped that some of us may live to see the day when gardeners will be something more than skilled "artisans," and that the florists of the next century may rank as men of learning, fitted not only by the education acquired

from observation and practice, but also by that cultivation which can be gained only from books, to make their mark upon the pages of the world's history.

To What Extent will a Knowledge of Botany and Alpine Plants benefit the Florist?

In asking the above question I refer to the plain, common, every-day florist; the man of limited capital, with a family to support on the profits from his business. The question is suggested by the closing paragraph of Mr. A. Veitch's article on "Commercial floriculture" on page 391.

That a knowledge of botany and of the plants named by him is a very great pleasure to any one, and a necessity to all who would become thoroughly acquainted with the wonders of plant life and growth is admitted. But looking at the matter from a business standpoint—and that is certainly the point from which we should view the occupation which brings us our bread and butter—is there any practical benefit? The merchant does not handle stock in which there is no profit, simply because it is beautiful to the eye. Bankers do not discount notes with a pretty signature only. The merchant may furnish his house with the richest fabrics to be had, and the banker keep a collection of specimens of fine penmanship, but only as his private purse shall dictate, never in connection with his business.

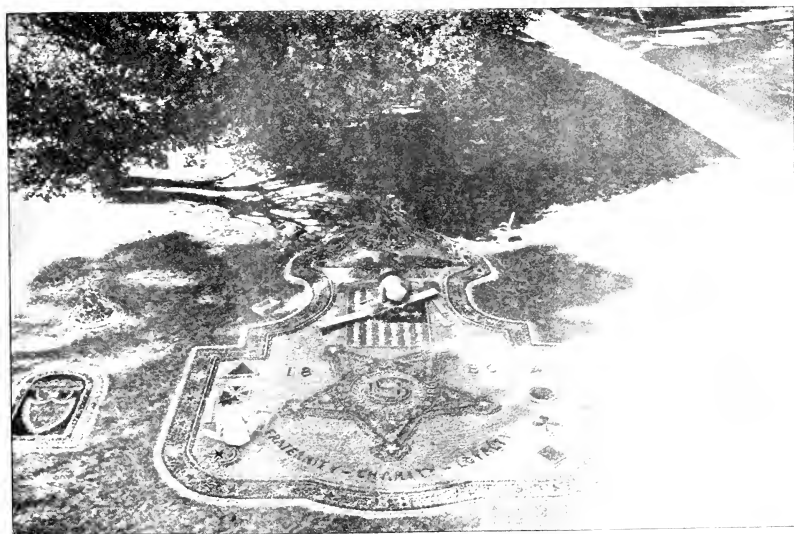
A fair knowledge of the principles of botany can be readily obtained by any florist at only a few dollars expense and a little application, but the knowledge of the plants named must be obtained by growing them at a considerable expense, and is the knowledge alone worth that expense? Can the practical florist afford this expense for the recompense? The writer would like to see every florist a fair botanist and possess a diversified knowledge of all plants, for he would dearly love to have that knowledge himself, but as the case stands he can not afford it, and may not be able to for many years.

The inclination of the age is toward departmentizing all businesses. By this method an individual may take one part of a work and by application bring it far closer to perfection than by dividing his energies among all the various parts that go to make up the whole, and I do not doubt that the young men who "can dissect," can grow more roses, better roses and get more money for them than the man who habitually grows a more diversified class of stuff.

If there is a practical benefit from a possession of the knowledge named which I have overlooked I would like to know it. I would like my brethren of the craft to know it. Will Mr. Veitch kindly tell us? P. MAHER.

[This searcher after information should not be turned empty handed away, and we believe that Mr. Veitch can not do a better service than to make this matter so clear that no further queries of this kind will be received. Ed.]

INVENTORY YOUR STOCK NOW.—Now is the time to take an inventory of your stock. Commence the new season right. Estimate values closely, and if you run across anything of no possible value, throw it out at once. Open a set of books now and keep an accurate record of your business for the coming year. Don't wait! There will never be a more favorable time than the present.



VIEW IN THE GARDEN OF THE HOTEL DE MONTE MINTE, FRANCE.



The Cypripedium.

BY W. A. MANDEL.

IV.

The culture of this genus is the simplest of all the orchid family. It differs greatly from most other orchids in one respect, namely, the resting season. A certain amount of rest is required by all cypripeds, yet it must not be so marked as in the case of other orchidaceous plants. Studying the structure of these plants, we find that they are not provided, as are other orchids, with pseudobulbs or tubers which might serve as reservoirs of supply in the dry and resting season, and therefore excessive drying up must be avoided.

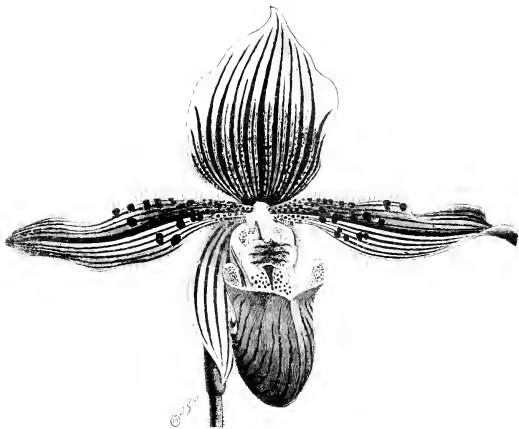
The deciduous or hardy kinds do best when planted out in a cold frame which has a northern exposure. This should be well drained and filled with good turfy loam, leaf mold and peat. Stones may be set in an irregular way so as to get different elevations, and thus insure various conditions for the different kinds according to their natural habits, as some prefer moister places than others. In the winter this frame should be protected so as to keep out the hardest frost, and in summer partly shaded from the burning sun. Early in the spring is the best time to transplant or divide plants of this section. This should be done just before the plants begin to grow, but they should be disturbed as seldom as possible. Hardy cypripeds can also be grown in pots or pans filled with the same material as that used for planting out, and then the pots plunged in the ground, but as a rule they do not do so well as when planted in the cold frame, where under favorable circumstances they soon grow into nice clumps, and make quite a show when in bloom.

The evergreen and selenipedium sections require about the same treatment, and therefore we may consider them together. In the first place comes the potting. This should be done after the plant is through flowering and just when it starts into growth; but with a little care cypripeds can be potted at any time of the year. The best material for this purpose is a mixture of good fibrous peat, clean sphagnum moss and potsherds. In the case of small plants with few roots it is best to work some peat between the roots, then envelop them with a thin layer of the same material, and tie them firmly so as to make as small and compact a ball as possible. The pot, which should be only just big enough to admit the ball, should be well drained with potsherds and a layer of moss placed on them; then the plant should be inserted one or two inches above the rim of the pot and the small space around the ball tightly packed, first with peat, followed by potsherds and finished with green selected heads of sphagnum moss. I prefer this way to the one of chopping peat and moss together and using the mixture for potting. When the plants get pot-bound, which occurs generally every two years, it is always better in the case of small pots to break the pots and then carefully loosen

the roots, which generally adhere to the pot. The old material should be cleaned out as much as possible, and the plant transferred into a pot a size or two larger. It is far better to use pots only till the 8-inch size is reached; after that pans are much more desirable than the large pots. The cardinal points in potting are: Give good drainage, use only good and clean material, pot firmly, elevate above the pot so as to prevent water lodging around the heart of the plant, avoid over-potting, and use potsherds liberally

when, if needed, the moss may be renewed and the plants well watered and syringed to insure good growth.

Of course these are only general points on culture. Separate cultural directions will be given at the time of description of the various kinds. But as is the case of other plants, a grower of cypripeds will benefit greatly by studying their condition and health when received, how they have been potted, also taking into consideration the exposure, temperature and atmosphere of the house, and then



CYPRIPEDIUM POLIUM

so that the roots will not travel far before finding something to which to attach themselves.

A low greenhouse is the best to grow cypripeds in, that the plants may be as near the glass as possible, and only shaded from the direct rays of the sun for three to five hours a day. The rest of the time they should enjoy the full light and partial sunshine, and if so treated they will make sturdy growths and flower much more freely than if kept shaded all the time, a mistake that most growers make. The temperature should not be below 50° nor above 75° with artificial heat, and enough top and bottom ventilation given to keep the air sweet and fresh summer and winter. Every morning the plants should be looked over and any that are getting dry watered. In good weather a light syringing once or twice a day will benefit them greatly, but this should be done only when ventilation is given, so that the water should not lie in the heart of the plant, this being fatal, especially to some kinds that have thick coriaceous leaves.

After flowering a slight rest benefits the plants very much. This is best effected by keeping them cooler, more sunny, and with a good supply of air and only enough water to keep the moss alive. Four to six weeks of such treatment is quite sufficient, as by that time the plants will start into growth again,

treat the individual plants according to circumstances, as it is a proven fact that no class nor even one species of plants can be well grown with uniform treatment throughout. Two elements of success are: First, the love for this class of plants, and secondly, good judgment.

Cambridge Botanic Gardens, June 10, '87.

(To be continued.)

Cypripedium Polium.

This is a very distinct showy hybrid, belonging to the acaulescent group. The leaves are somewhat large, oblong-acute, of a light green color, with dark green tessellations. The dorsal sepal is varnished, whitish, with a red suffusion; nerves green, with a central bar of red stretching from the base upwards; the petals are linear, glossy, covered slightly with fine hairs, and purplish-red, but towards the base green, and marked with purple dots; the lip is suffused in front with purplish-red, and furnished with green nerves. The figure was taken from a plant in the possession of Mr. F. G. Tautz, Studley House, Shepherd's Bush. It is a free-flowering hybrid, raised by Mr. R. Warner.—*Gardener's Chronicle*.

MR. HERBY BENNETT, of Shepperton, England, will visit this country next month, and it is expected that he will be present at the Chicago convention.

Caladiums.

Magnificent fine-foliage plants of the easiest cultivation. They grow in summer and rest in winter, but with tact and forethought we can have them in good condition most any season of the year we wish. They are indigenous to tropical South America, but we have also some very fine garden-raised sorts. For many years past caladiums have held a prominent place in our hot-houses, and such grand sorts as Chantui, Bellevue, Beethoven, Wightii, Meyerbeer and Baraquini were the pride of our boyhood. Some of these are still unsurpassed in beauty, and indispensable. But further discoveries in the tropics have added brilliance in greater variety, and the hybridizer's skill has given us golden groundwork. Henry Waterer, of Philadelphia, has been very successful in introducing from Brazil some of the finest kinds yet distributed.

Caladiums are especially suited for summer work, when they furnish a more gorgeous display of colored foliage than the crotons, dracaenas or other popular plants. As pot plants for conservatory decoration, exhibition specimens, or associated with Rex begonias, ferns, palms and the like, planted in groups in a well-sheltered shady spot in the garden, they are effective and appropriate. Although they have not the persistence of a rubber plant, the lasting qualities of an anthurium, or the elegance of a palm, they are nevertheless useful in the decorations of parlors, halls, shady verandas and the like, where they last in good condition one or several weeks, according to place and usage. The dwarf sorts and small plants of the larger-growing kinds are often admired as table plants or set in vases throughout the house. They are also used in window boxes that are shaded from sunshine.

Caladiums are tuberous-rooted and like a good long rest in winter. Like gloxinias and tuberous-rooted begonias, they are accommodating; we can lay them on their sides under the benches or on shelves from October till April if we wish. But observe that the temperature be not less than 50°; less may not injure, but it certainly will not benefit them. And look out for rats; they love caladium tubers as dearly as they do tigridia roots.

When the tubers start to grow I use moderately small pots, and as these are filled with roots, shift into larger sizes. Use rough, turfy, rich soil, something that the water will run right through, and from the moment caladiums begin to grow till they show a disposition to go to rest, keep them growing by shifting as needed, and giving copious waterings and occasionally manure water. Give them plenty of room, keep them shaded, and don't let their leaves break down for want of a stick and a string. But well grown plants seldom need supports.

They are readily increased by separating the sprouts as they start to grow; wait till they have grown a few inches and have thrown out a few roots, then cut them off and pot the slips.

More interest is taken in the cultivation of caladiums around Boston than anywhere else in the country, and at the September annual exhibitions of the Mass. Hort. society we usually find capital specimens. From 1879-'82 the finest varieties there exhibited were Alfred Bleu, Beethoven, Boeldieu, Chantui, Honlleitii, Jules Intzeys, Md. Andrieu, Md. Houlllett, Md. Duval, Meyerbeer, Skopetzianum, Rogieri, Dr. Lindley, Herold, Prince Albert Edward, Rossini



CALADIUM MEYERBEER

and Triomphe de l'Exposition. During the last few years the grand old sorts have been considerably displaced by newcomers, and we find the prize-takers consisted of Albo-luteum, Carinatum, Candidum, Comtesse de Maille, Cyphel, Mons. A. Hardy, Md. Fritz Kerschlin, Md. Marjolin, Scheffer, Reine de Portugal, Sanctionnathion, Sirius, Duchess of Teck and John R. Box. David Allan, of Boston, gives me the following half-dozen as being his choice of six: Candidum, Leplay, Gerard Dow, John R. Box, Md. Marjolin, Scheffer and Princess of Teck.

But let no one who delights in caladiums omit that little gem, Argyreus. Many of us remember with pleasure the handsome pans of it we saw at Mr. C. W. Childs' beautiful place last August. And as a red-leaved companion to this silvery favorite we have Minus rubescens, which is some six inches high and has reddish-crimson leaves bordered with green.

WM. FALCONER.

Where to Locate.

Near the large eastern cities there are many small growers who think it is to their advantage to carry their flowers in themselves and peddle them from store to store. Passengers on the early trains will sometimes see half a dozen of them at one time toiling up the street with their boxes on their arms. If you observe these men closely, you will be struck with the fact that they do not have a prosperous look, though there is now and then an exception. If you ex-

amine their flowers, you will find that they seldom come up to average quality, and often are very poor indeed. These small growers seldom have any skilled assistance, and are obliged to be absent at the very time their presence is most needed, leaving the all-important ventilation to be dealt with by a child, perhaps, or some inexperienced person.

Flower growing requires at all times minute personal attention, and the absence for half a day of the only person capable of giving that attention is in itself a sufficient reason for failure. And when to this is added the fact, only too common, that a forenoon's absence is followed by an afternoon of doubtful efficiency, it is hardly necessary to look further for the cause of this lack of prosperity. These growers suppose that they get better prices by peddling their flowers. In isolated cases they doubtless do get more for a given dozen roses or hundred carnations than their neighbors who send to commission dealers got upon that day, but the idea that they get a larger aggregate sum for a year's sales is the wildest delusion.

The place for a small grower is in his greenhouse; he can't afford to turn himself into a salesman. The half day thus spent will cost him much more than his commission would come to, and that too without counting car fare and other expenses which the grower who stays at home escapes. I peddled flowers myself for a short time; it took me about a month to see the folly of it. During that time I listened with amazement to

the constant complaints of my fellow peddlers. Knowing that they had glass enough to give them a good living, I could not understand it. It is clear enough now.

I earnestly advise all beginners to keep away from the big cities. Select a large town twenty or thirty miles away, where there is enough local trade to use up short-stemmed flowers and odds and ends, and send the bulk of the crop to a commission dealer. The chances of final success will be a hundred per cent. better under these conditions than if the grower insists upon being a peddler also.

Select a broker of good repute, using the same means of ascertaining his reputation that are generally used in the business world. Ask for references and inquire closely into the matter. Every honest dealer will court such an investigation. And finally, don't expect too much; don't expect a broker to do impossibilities. The peddlers will tell you of the big prices they get—and they will not understate it; but they will not tell you how many times they have had to carry their flowers home unsold.

If you raise first-class stuff, it will always bring some price; if you raise poor, it will often remain unsold.

NEMO.

Duty on Holland Bulbs.

I would like to call the attention of the trade to a matter which I think ought to be brought before the next meeting of the S. A. F. It is the now existing duties on all bulbs. As we all know, most bulbs which are now imported cannot be, or at least are not, grown to any extent in this country, and therefore there is no protection to any home industry, the duty of twenty per cent. making merely an addition to the cost of nearly every bulb we buy. As the duty on live plants has been abolished, it would be no more than right for that on bulbs to be likewise done away with.

The duty on plants was a protection to the plant grower of this country, for since its abolishment the foreign grower has been able to compete with the home grower, as he can produce his stock with much cheaper labor, the common laborer receiving here better wages than skilled nurserymen's employees in Europe; and as we can produce the plants imported, though not so cheaply, the abolishment of the duty on plants was unquestionably an injury to the trade here.

An abolishment of the duty on bulbs, however, would be a benefit instead of an injury, as it would cheapen bulbs twenty per cent., and cause no competition with any of our home industries.

I hope to see this matter taken in hand by the National society at Chicago next month, as I believe that by united action something can be done toward securing the necessary legislation to lift this unjust and unnecessary tax from the florists of America.

J. N. M.

Handling Cut Flowers.

In addition to properly cutting flowers the details of handling and shipping are very important.

Don't mix in a lot of bull-heads and other poor buds with your roses. They only lower the quality of the whole, and do not add to the quantity, as you cannot expect anybody to pay for such worthless trash. Flowers are purchased for their beauty, and if they possess none, no one

will be silly enough to buy them simply because they are flowers, or attempts at them. Where such buds are sent to a wholesale dealer he is obliged to sort them over, pick out the worthless ones and throw them away, and this re-handling is, of course, injurious to the rest of the stock; therefore you are injuring your good buds as well as making unnecessary work by mixing the inferior ones with them. When you cut these worthless buds throw them away; they will bring you far more money on the rubbish heap.

When packing flowers to ship to a dealer to sell for you, sort the buds into several different qualities, keeping each by itself. Flowers which are uniform in quality will sell much quicker than when all sorts and sizes are mixed together. This applies to all other flowers.

By a careful attention to these details of cutting and packing cut flowers, you can add many dollars' value to your product—not an imaginary value, but a material one which you will realize on at once. The writer has had experience at both poles of the cut flower circuit, and knows whereof he speaks.

G.

California Flowers.

It is generally acknowledged that this is an age in which florists as well as everybody else have an eye to the main chance, and competition is at a high tension. Energetic California has taken hold of the flower business with a vim that will undoubtedly raise the ire of some of the "down easters."

A rich company, with Emory E. Smith at its head, has been formed, and hundreds of acres are being planted in roses, tuberose, lilies, violets, narcissus, hyacinths, etc. The finest of these flowers will be shipped east by cold storage (which has proved a success). The remaining blossoms will be manufactured into perfumery. What effect the placing of these large shipments on the market will have is hard to say, for in southern California no glass or coal has to be used, and during the holidays Mermets at 50 cents a dozen would pay handsomely, and tuberose and narcissus at 5 cents a spike would pay well, to say nothing of orange blossoms, violets, etc., which can be shipped in endless variety.

It will be well for florists to keep an eye on the Golden State.

S.

Arcadia, Cal.

[We are glad to note that the company is rich, as it will need wealth after it has experimented in shipping out-door grown flowers for, say, three months. No experienced eastern florist fears competition from out-door grown stock, even if shipped but thirty miles instead of three thousand. Before California supplies flowers to the "down easters" she should first grow enough for her own demand. It is a great surprise to eastern visitors that no really first-class rosebuds with long stems, healthy foliage and fine coloring can be seen on the coast except at the few large cities where good greenhouses have been established. It is true the quantity of flowers is great and prices low, but the roses especially would not bring a sou if offered in the best eastern flower stores.]

The perfumery line we trust may have greater attractions than the shipment of flowers, otherwise the experiment may prove more expensive to the directors than revolutionary in its effects on trade.

—En.]

Daily Record of Work Done at the Lincoln Park Greenhouses, Chicago, 1886.

July 16—Tem., morning 68°, noon 88°, evening 80°. Wind W. to SE. Trimmed and cleaned beds. Potted cuttings of Alternanthera aurea.

17—Tem. 62, 64, 62. N. Same as yesterday.

18—Tem. 57, 70, 64. NE. Sunday.

19—Tem. 60, 80, 72. SW. to SE. Turned compost. Cleaned and trimmed carpet beds. Pricked out in boxes seedlings of Cineraria hybrida.

20—Tem. 68, 67, E. to N. Turned and mixed potting soil. Planted celosias and Cineraria cand. in beds from which phloxes and petunias had been removed.

21—Tem. 66, 87, 77. W. to S. Commenced taking up tulips from where they had been heeled in. Continued turning potting soil and cleaning beds.

22—Tem. 64, 71, 66. NE. Continued taking up tulips, and same as yesterday.

23—Tem. 64, 80, 75. N. to SE. Pricked out in boxes primulas and cinerarias. Finished taking up tulips. Turned potting soil and trimmed beds.

24—Tem. 72, 92, 85. S. Sowed in boxes seed of Dianthus barbatus. Trimmed and cleaned beds.

25—Tem. 75, 94, 86. SW. to N. to S. Sunday.

26—Tem. 75, 78, 72. SE. to NE. Repotted poinsettias. Cleaned and trimmed beds.

27—Tem. 68, 82, 83. NW. to SE. Potted Cineraria caudicissima into 3-inch pots. Cleaned and trimmed beds.

28—Tem. 74, 95, 93. SW. Prepared propagating frame. Turned compost and trimmed beds.

29—Tem. 78, 80, 63. W. to NNE. Cleaned vases and stands, mulching former with horn shavings and soil. Put in cuttings of roses in propagating frame. Turned compost and trimmed beds.

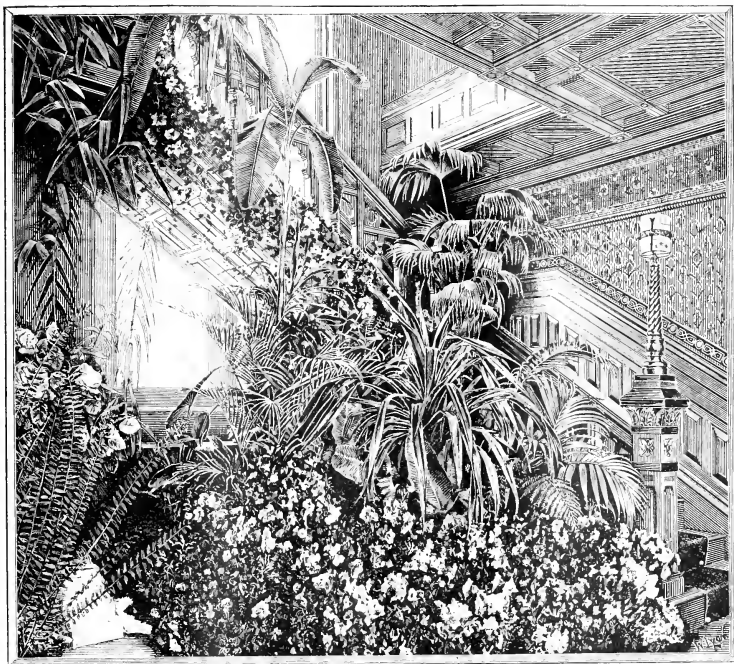
30—Tem. 73, 76, 73. NE. Continued same as yesterday.

31—Tem. 71, 84, 76. E. Tied up ricinus. Trimmed and cleaned beds.

The Conservatory.

Large foliage plants planted out in conservatories that are suitably constructed and heated, and are properly furnished with beds and borders, can be kept in creditable order with considerably less labor than when grown in pots, and the planting-out system not only lessens work but affords better opportunities of displaying the beauties of the plant. It must, however, be admitted that such a display of flowers cannot be kept up continuously by this mode as when the pot-system is adopted, and the pots changed at will, but herein lies the question of labor, now become so serious to most of us.

Amongst large-growing plants that take a leading place in this kind of embellishment palms rank first, and kentias may be placed foremost with these; K. Fosteriana, K. australis, K. Belmoreana, &c., form grand specimens, and are at all times admired; these with arecas, phoenixes, chamaedoras, rhapsis, searothias, cocos, &c., are now, where in good condition, developing foliage, and will need frequent and copious supplies of water to well moisten the beds throughout, and it may be remarked that an error is more likely to be committed by not giving enough, than by giving too much, provided the plants are perfectly established, and the beds efficiently drained. Newly-planted specimens will, of course, require



AN ARTISTIC PLANT DECORATION

very careful watering until well rooted. The foliage should likewise be thoroughly syringed with tepid rainwater each afternoon when the structure is closed, and its condition may be maintained or improved by occasional sprinklings of fertilizer upon the surface of the soil immediately previous to watering. It is marvellous how quickly concentrated manures of this kind act upon palms and similarly constituted plants, by changing sickly-looking foliage to a healthy appearance, when the debility is occasioned by lack of nourishment. Scale is often troublesome to palms, and may be kept under by sponging and employing insecticides. We generally use fir-tree oil for this purpose, and keep thrips down with the syringe. Seaforthias are particularly liable to attacks from these, and its foliage when neglected is quickly disfigured by them. Tree ferns also require plenty of water at this season, and their stems, which are now enveloped with active roots, should be kept constantly damply by means of the syringe; their old fronds are sometimes allowed to hang after they die, and thus partially protect the stems from drought; but although this is a wise provision of nature, I cannot say I like to

see it utilized in conservatories where neatness should be one of the chief attractions. Although cycads do well in confined root-space and are moderate in their demand for water, some of them are also suitable for planting out. I recollect good examples of *Zamia pungens*, &c., at Woburn that were treated in this way. The various kinds of musas all succeed best planted out, as does likewise *Ravenalia madagascariensis*, a plant possessing noble foliage similar to the musas, and known as the "Traveler's tree," on account of water being at all times found in the axils of its leaves. The thong-like roots of the musas are gross feeders, and should be plentifully supplied with liquid manure through the summer, as should also the *ravenalia*, it being also requisite on account of their massive foliage that good judgment should be exercised in planting these plants. Pandanus and dracaenas of the *braco* and *indivisa* types need similar treatment as has been advised for palms.—*Thomas Coomber, in Gardener's Chronicle.*

BUFFALO, N. Y.—Wm. Legg has opened a store at 235 Allen street. He will add a new house 50 x 20 to his greenhouses.

An Artistic Plant Decoration.

Our handsome illustration shows a decoration arranged by the B. A. Elliott Co., of Pittsburgh, at the Andrews mansion in Youngstown, O., on the occasion of the marriage of Miss Andrews to the son of the late Senator Logan. The blooming plants in the foreground are azaleas, and the vines which so gracefully adorn the stairs are clematises, which had been forced into flower in the greenhouse. What is more beautiful than a decoration of this kind! The charming arrangement of foliage and plants artistically combined show the beauties of both to perfection.

HARTFORD, CONN.—The initial exhibition of the Hartford County Hort. society was given June 17. The display of plants and cut flowers was excellent and varied, the roses shown being especially fine. A floral settee with the back and seat of different varieties of roses, set off with a basket of huge strawberries, was a novel and attractive exhibit made by J. P. Ralph. S. W. Robbins, Geo. Coombs, Ellwanger & Barry, McClintic & Spear and others also made excellent exhibits.

Newport Horticulture.

On returning from a hurried visit to the Boston rose show, I stopped over at this beautiful summer resort of Rhode Island.

At Mr. Wm. Findley's "Commercial" I saw one of the heaviest crops of grapes, just coloring, that I have ever seen. There are two houses of these, each 150 feet in length; the first is principally Black Hamburgs, the other Muscat of Alexandria, and finer crops I never saw. A special feature is also made of peaches and nectarines under glass, and the fruit was coming on nicely for Newport's sea son. Melons are also largely grown for the same purpose, and are now looking very fine. Of roses and bedding plants the season was about over, though a large number of the leading varieties are grown here.

The magnificent place of the late Miss Catherine Wolfe was in splendid condition. One of the finest things I saw there was a collection of gloxinias. I was not fortunate enough to see the gardener who so ably superintends this handsome place.

A short distance away is the summer residence of Cornelius Vanderbilt, and here also everything was in beautiful keeping. Mr. R. Gardiner, the able superintendent, showed, among other attractions, the finest crop of strawberries I have seen in many years. Carpet bedding is not as largely done here as formerly, though some very fine pieces are still to be seen.

The last place visited was that of Mrs. Gardner Brewer, where is to be seen one of the finest of Newport's justly celebrated lawns, stretching from the sea back to Belmont avenue. The carpet bedding is, as usual, very elegant. Mr. W. Hill, the able gardener, making a special feature of this style of gardening. One of the most useful plants employed by him is *Euonymus variegata*; it is here perfectly hardy and very beautiful.

In the plant houses, of which there are several very fine ones, are good collections of orchids, palms, crotons, etc.; but a handsome feature will in a few weeks be the grand lots of water lilies, of which all the choice and rare varieties are here grown in such quantity and of a quality to satisfy the most exacting admirer of these beautiful aquatics.

Lack of time unfortunately prevented me from visiting the many other beautiful places for which Newport is celebrated.

I would advise any florist who can possibly do so, to take the first opportunity to visit this beautiful city, which contains so much of interest to the craft. It will not be time and money wasted, for in no place in this great country can be seen in the same space such a diversified blending of art's finest touches with nature's grand accompaniments.

J. N. MAY.

Violets and their Disease.

This was the subject for discussion at the last meeting of the New Jersey Hort. society, held at Orange on the second Monday in June.

Mr. Carl Schaeffer, gardener to Samuel B. Colgate, Esq., has been a very successful grower of the violet for many years, and was requested by the society, at its previous meeting, to give his views on the subject for the benefit of members who had been less fortunate with this flower.

Mr. S. started by saying that the dis-

ease is caused by using too much fresh manure, and contends that if due care is used in the use of manure, and the plants put out as early as possible in the spring, kept frequently hoed during the summer, lifted before very cold weather comes, and placed in frames or very cool houses, the disease will never trouble the violet, providing they get plenty of air at all seasons of the year. Other members present differed very materially from Mr. S. as to its cause, stating that while plants in some locations were comparatively exempt from the disease, others under almost identical treatment would be so bad as to be practically worthless. Others again had the past season planted violets in soil which was very liberally manured, and had no disease whatever the whole season.



VIBURNUM TINUS HIRTA

So this knotty problem remains in about the same state as it was before Mr. S. gave us his very practical and interesting remarks on the subject. While his plan of treatment may not be the universal panacea for all the ills of the violet, it is nevertheless a good one for all to follow who wish to cultivate this beautiful flower.

At this meeting a very liberal premium list for the chrysanthemum show to be held next November was adopted. The president, Mr. Jas. R. Pitcher, was in the chair, and a very pleasant and profitable evening was spent by the large number of members in attendance. M.

Hen Manure.

Having used this manure in various ways for sundry crops for many years, I thought it might be well to mention that in the raw state it is about as powerful as guano, and if used in that state in potting plants, as recommended by W. F. B. (page 120), it would probably kill the roots, if not the plant—that is, any roots coming in direct contact with the manure.

I have seen plants spoiled from using an extra strong top dressing of the dry manure, and also from extra strong liquid, and I would not under any circumstances use it in potting plants. If used for pot plants, it should be for gross feeding plants, and well diluted.

It is an excellent manure for top dressing roses on beds or benches during win-

ter forcing, mixed at the rate of a tenth part to the ordinary top dressing of manure. But in recommending it used in the potting soil, no doubt your correspondent had good results, for he must have used it with discretion; but many of your readers would think and act on the principle that if one once gave good results, a pound would be much better.

In growing such gross feeding crops as corn, hen manure is excellent, but in this case it is easy to give too much. It may also vary in its effects from a variation of the weather, for I may mention a case here in which a crop of corn was killed from using an extra dose of such a simple and weak manure as malt dust, simply from the extra dry condition of the soil.

I have also seen cow manure strongly recommended for mulching roses, and we know it is excellent, but that does not authorize the novice to plaster it on six inches thick before the plants have started to grow, and the manure fresh from the stable at that. I would say with all fresh and doubtful manure proceed with caution; it is easy to give more, but when roots are killed it is hard to replace them.

JAMES TAPLIN.

Maywood, N. J.

Viburnum Tinus Hirta.

In this we have a useful and ornamental variety of an old plant capable of furnishing a large quantity of handsome white flowers of great purity, at a season when white flowers of any kind are most appreciated. It is hardy in all but the severest winters, consequently a large number of plants in pots for forcing purposes could be housed at a minimum outlay. Except during intense frost, no artificial heat would be required by plants enjoying the protection of a glass structure, until wanted for forcing purposes. The ordinary form flowers in the open air during the autumn and winter months in mild seasons. Under these conditions, however, the flowers are tinted with pink or purple.

The variety under notice is a greatly improved form with intensely dark green, coriaceous, more or less hairy leaves—the latter character being overlooked by our artist, although otherwise the figure is a faithful representation of this elegant shrub. The flowers are ivory-white, and although small, are collected in dense terminal semi-globular cymes, which are seen to the best advantage when furnished and supported with their own leaves. Unlike the camellia, plants, whether grown in pots or planted out, are heeled rather than otherwise by an annual cutting back, so that leafy sprays can well be afforded, and always look very natural. The substitution of this variety for the ordinary one would be of great advantage to those who grow large bush or pyramidal specimens in pots or tubs for cool conservatory work. Messrs. Cutlisch & Son, of Highgate Hill, are always very successful with this plant at the spring exhibitions, and make a special feature of it, being able to furnish large quantities for cut flower purposes with little labor or outlay.

Being naturally a winter-flowering subject, the least provocation in the matter of forcing is requisite to bring it into bloom; their cultivation is an easy matter, and those who grow deutzias could manage the plants easily. After flowering, cut the plants into shape and keep them in a cool house till they start into growth of their own accord; of

course by urging them into growth earlier they would be induced to ripen their buds and flower sooner next autumn or winter. If it is necessary to repot, give them a shift, using a compost of fibrous loam with a mixture of well-rotted cow manure and sand. In summer they may be plunged out of doors in ashes in a sunny, or at least in a position well exposed to light.—*Gardening World.*

Floral Work at St. Louis.

At the funeral of A. A. Talmage, late vice-president of the Wabash Western railway, the floral tributes were numerous, and many were very elaborate.

A large piece twelve feet in length was a floral representation of the locomotive used to pull Mr. Talmage's private car. The boiler and cab were of white roses and carnations; the smoke-stack, hand-rails and pilot of purple immortelles, while the head-light was of red carnations; the tender was of white and yellow roses. The whole rested on a purple track supported by crimson ties on a road-bed of ferns. Another design represented the private car just entering a tunnel. The car was of white buds, and contained a vacant chair of crimson immortelles. The tunnel was of ferns dotted with Marguerites. A wheat field sprinkled with Marguerites bore above a shield of white and yellow roses, on which was an appropriate inscription. One very large piece was a gates ajar with a railway track running between them, and inscribed at the base: "The right of way is his from earth to heaven." The designs above described were arranged by the Jordan Floral Co.

Other handsome pieces were a scroll of glossy ivy leaves surmounted by a cross of white roses, the whole resting on a bed of pink and white roses and lilies; a large pillow bearing a monogram through which ran a gleaming saber; a huge cross of ivy garlanded with roses and resting on a base of roses and lilies; and a large easel bearing the monogram, "O. R. C.," from the "Order of Railway Conductors," as well as innumerable other pieces of conventional design. About the altar palms and other plants were arranged in profusion.

Pittsburg.

At the celebration of the "glorious fourth" at "Solitude," the residence of Mr. Geo. Westinghouse, of air-brake fame, the floral decorations, gotten up by Messrs. John B. and A. Staroch, were probably the most elaborate ever seen in Pittsburg. The beauty of the display was fairly rivaled by the variety of designs emblematic of the significance of the day, which reflected great credit on the firm that conceived and executed them. A feature was the harmony of the several subjects taken in hand and the completeness of the idea intended to be conveyed. The whole palatial house was abloom with roses, but it was in the parlor that the triumph of floral art was reached. The table which was there set out was in the form of a Greek cross, in the center of which and at each of the four ends were placed the magnificent designs. The center piece was a dome of immense proportions, which stood fully six feet high, in which the national colors, red, white and blue, were charmingly brought out. An American banner of flowers occupied one of the ends of the cross. At another was a great scroll on which was written the Declaration



BASKET OF AQUATIC BLOOM

of Independence, a musket and sword crossed at the foot, and a handsome silk flag carelessly draped. Then came the torch of liberty, a triangle design, on the three sides of which were the scales of justice, sword and keys of knowledge, and the sign of Esculapius, respectively. The fifth piece pictured the Independence bell, and clearly inscribed on it could be seen the dates 1887—1776. It is said that in the decoration of the dining table alone as many as 3,000 roses were employed.

DOUBLE PETUNIAS FROM SEED.—We get such capital double petunias from seed that I never keep over a stock of old plants or cuttings. This year I have been exceptionally fortunate not only in getting uncommonly fine double and fringed varieties, but about twenty-five per cent. have come very double. The strain is *P. grandiflora fimbriata flore pleno*. Tempted by the colored plate in Sutton's catalogue, I sent to them for some seed. These seedlings are also in bloom now, and have very large flowers, but they are not fringed or frilled at all, and are lacking in variety and brilliance of color, and not one of them is very double.

W. F.

Basket of Aquatic Bloom.

Our illustration shows a basket arranged with water lilies, nelumbiums, etc., interspersed with ferns. The engraving was made for use in a book of floral designs to be published by Mr. A. Blanc, the Philadelphia engraver, and was kindly loaned to us by that gentleman.

HOLLYHOCKS FROM SEED.—It pays to get seed of the very finest strain of these noble plants. For instance, I now have Chater's varieties, that cost me about a cent a seed, in bloom, and without one exception they are full double and excellent. I also have "double mixed" that according to the seed catalogue had been saved "from named varieties of all shades of color," and not so much as one plant has full double flowers, but a few are semi-double and all the rest single. And this in a mass of three hundred plants. I saved last year a lot of self-sown seedlings that came up in my hollyhock bed, in which the finest doubles only were grown; these are now in bloom, and every one is a very good double.

W. F.



Hail Insurance.

The complete legal organization of the Florists' Hail association was accomplished July 7, 1887, although to all intents and purposes the company has been in active operation since June 1. The Florists' Hail association is a new corporation in law and in fact, and this result has been attained by the expenditure of much time and money. The subscribers to the guarantee fund have given their means promptly; the directors have given the matter unremitted attention, Messrs. Jordan, Hill and Vaughan taking the trouble to come east to assist in perfecting the plan of insurance, and, lastly, the secretary has given more time than most men dream of, to secure the legal organization of the company. One of the obstacles which was overcome was the passage of an act in the New Jersey legislature giving the company a right to organize in that state.

It seems to me that those who have expressed a desire for hail insurance should join the company and give it a trial. They owe it to those who have spent time and money to secure a result which they desired. Many who have joined to the present secretary have joined, but others have not been heard from. If all those who have shown an interest in the matter of hail insurance in times past would come in now, the secretary could come to Chicago with a million and a half square feet of glass enrolled upon his hooks, with the probability of doubling that amount during the meeting. The company has been in active operation for six weeks. In that time they have had one loss—that of Mr. A. M. Herr, of Lancaster, Pa. It has been adjusted, and undoubtedly Mr. Herr has been paid before this appears in print. There is no need to stand aloof. We are in practical operation, and the machinery is working as smoothly as though the company had been organized a dozen years. The only thing needed for its friends to continue sending forward their applications as already so favorably begun.

Saddle River, N. J.
JOHN G. ESLER, Sec'y.

[Very many have signified their intention to join at the Chicago meeting. It is the secretary's desire that the application be made now, that a good showing can be made in his first report. We trust the hail men will find time to oblige the secretary by coming in as requested. Below is a note from Mr. Herr.—ED.]

"FIRST COME, FIRST SERVED"—[I was the first to apply for insurance in the Hail association, and suitably enough, was the first to apply for the adjustment of a loss, payment of which I have received this day. I would advise every florist to get under the protecting arms of the association without delay, for the "hail belt" may slip and get over your houses, as it did over mine quite unexpectedly. It is no small assistance in case of loss to receive payment for the glass broken, and any florist will certainly feel more secure by having at least a part of his glass insured.]

The men at the head of the association are a guarantee of its success, the hard worked secretary considering it no trouble to give information to inquirers, and spares no pains in adjusting losses equitably, and the same are promptly paid by the treasurer, with a nice letter of condolence in addition.

A. M. HERR.

Lancaster, Pa., July 9.

Plant Notes.

SWEET PEA BUTTERFLY.—This uniquely marked sweet pea is very favorite with flower buyers, and should be largely grown.

LILAC MARIE LEQUAY.—A French variety recently introduced into England, and as regards size of pips and trusses of bloom appears to be the finest of white lilacs.

ROSES FOR MINNESOTA.—Will Mr. Babcock be kind enough to describe his method of wintering roses where the mercury drops to 40° below zero?

S. CALKINS.

THE HOLLYHOCK DISEASE.—This disease, which has been so destructive in Europe, has spread to this country and is now doing serious damage in the Boston public garden.

ALBINO CHINA UMBRELLA TREE.—Mr. J. L. Normand, Marksville, La., sends us a spray of this handsome tree. The foliage of the spray sent was a very light yellow, slightly dashed with green.

HENDERSON'S NEW FRENCH MARIGOLDS.—I now have some well-filled masses of these in full bloom. They are very compact in habit and quite copious in blooming; still I don't admire them much. They are a fine selection of their type, both for beauty and attractiveness not equal, in my opinion, to some good strains of flat-rayed marigolds. W. F.

TUBEROUS-ROOTED BEGONIAS.—I am well aware of the large size, substance, brilliance and beauty of the finer varieties of these beautiful plants, and for the past four years have been trying to get up a satisfactory stock from seed, but so far without success. I have got one or two that are splendid, but that is rather meager compensation for the time and expense bestowed on them. Many "jubilee" collections (reckoned to contain the finest varieties extant) have been sent to this country by Laing; if any of your readers have a set of these plants, will they please tell us about them? W. F.

JABALA GRACILIS.—I had seeds of this from Thorslund, sowed them in February, grew on the seedlings in pots till the end of April when I transplanted them into a cold frame, thence toward the end of May into good rich ground. They are now, and have been since the first week in June, in good bloom. The flowers are single, ordinary size, and of white, yellow, buff, crimson, maroon, scarlet and other shades, and most all of them are freely and prettily striped and penciled. Some of the plants do not have striped flowers; some others again display plain and striped flowers on the same branch, but all are pretty. W. F.

FOXGLOVES.—Foxgloves growing to a height of eighteen feet (p. 463)! Why, I never before heard of such a thing, nor yet of the half of that height. But they are grand flowers. I grow them by the hundred, and in masses as you represent them. They last in good bloom from the first week in June till the 1st of July, and in favorable weather later than that. They are perennial, but in finest condition when treated as biennials. They

need a slight protection—say of tree branches or rank litter in winter. In large masses in parks or cemeteries they have a striking effect, and an appropriate place for them is the margin of a shrubbery or wood belt, for in such a place they abound in their wild condition. W. F.

GOLDEN COREOPSIS (C. lanceolata).—For a mass of brilliant golden flowers from Decoration day till the 4th of July, we have nothing to surpass this showy composite, and it continues to bloom more or less all summer long. It is a highly herbaceous perennial, and easily raised from seed. North of New York it will not likely bloom the first year from seed, and in Vermont I have heard that it often slips the second year. Here it blooms in the greatest profusion, ripens any quantity of seed, and self-sown seedlings come up around the old plants as thickly as if they were crab-grass or chick-weed. W. F.

ZINNIA ELEGANS ROBUSTA GRANDIFLORA PLENISSIMA.—Plants raised from seed sown in February and March are now growing in rich garden soil, and are moderately large specimens and in good bloom. The flowers are unusually large, double, and brilliant in color. "Scarlet" and the shades of purple prevail; so far I have not got any whites or yellows among them. Although my flowers cannot compare with the size (five to six inches across) mentioned by the raiser, still they are quite as big as I expected to find them. A very good flower before me measures 3½ inches in diameter, a little over 10 inches around, and 6½ inches over the top; the broadest of the flower leaves average eleven-sixteenths of an inch wide. While a few of the plants have produced semi-double flowers, none of them have produced any single ones. W. F.

Boston.

Trade very dull, as usual in July.

The Gardeners' and Florists' club will have an excursion to Rocky Point, R. I., on July 26. They go by special train to Providence, and thence by boat to Rocky Point. Many of the Providence brethren are expected to join, and a good time is assured.

F. L. Ames is building two more orchid houses especially for cattleyas and odontoglossums, at North Easton. He proposes to heat them by steam, which is something of a new departure in orchid culture.

At the Saturday show of the Mass. Hort. society on July 9 there were several fine collections of Iris Kamperi from J. L. Gardner, E. Fewkes & Son, J. F. C. Hyde, and E. Shippard & Sons. The exhibits of hardy herbaceous and native plants were also good. Several vases of orchids from Siebrecht & Wadley, of New York, attracted considerable attention. One of these, a white Cattleya gigas, created quite a sensation among the orchid fanciers. It is the only white gigas in existence, and has been named by Mr. Siebrecht, "Rochelliana alba." This gem was awarded a first-class certificate of merit by the society.

W. J. S.

LANCASTER, PA.—A. M. HERR will use 3,000 feet of new glass this season.

NEW ORLEANS.—J. H. Menard will build a large new house this summer.

RICHMOND, VA.—A new house 20x100 will soon be erected by W. A. Hammond.

Re Cut-Flower Trade.

Midsummer Floral Fashions.

BY OUR NEW YORK CORRESPONDENT.

We must look to the leading summer resorts for floral style, now that the patrons of our fashionable florists are out of town. Natural flowers have never been worn in such profusion at Newport, Saratoga, Long Branch—in fact, at all the great hotels, where every evening the drawing-rooms are filled with persons in full dress.

I have been about considerably among the suburban villas of representative New Yorkers, and I have never before seen such elaborate decorations in the cottages with flowers, which are apparently the order every day. As every season the garden show is more extensive, displaying a higher style of landscaping, so interiors evidence admirable taste in the distribution of the quantities of flowers and foliage brought in doors every morning.

Not satisfied with garden growth and wild flowers and wood ferns, boxes of choice bloom are ordered from this city. Stephanotis, gardenias and the choicest cuttings from the stock of the wholesale dealers are again packed and sent to country seats. The fashion of trimming gowns with natural flowers is so universal at the large resorts, that it has doubled the amount of bloom demanded. The wearing of fresh flowers on the drapery of dresses is not confined to full dress. Some of the most charming effects I have seen have been made on satin and linen lawn dresses. Dainty clusters of field daisies and grasses are tacked as finish to side trimmings of morning dresses. Bunches of yellow-eyed daisies garnish the sash of an ecru pongee silk matinee frock. Moss rose buds and grasses are placed in several positions on mull dresses, and water lilies are gracefully adjusted upon cambric suits.

The Puritan rose is a favorite flower and brings a good price. It is very beautiful, providing a strong white rose that will not throw its petals out loosely after being worn an hour. It trims the white silks, satins and grenadines in vogue for full dress, very handsomely. A costume that was greatly admired at Long Branch last week was a white gale silk, with grenadine drapery disposed in sashes, which were held in place by Puritan roses. Married women are wearing gardenias and stephanotis on their gowns; both the skirts and corsage are trimmed. The ladies' maids at the watering places are evincing nice taste in their work of garnishing their mistresses' gowns. Florists will have to look to their laurels.

An exceedingly pretty device is the floral pocket, which is a pouch suspended from the belt, in which to carry the handkerchief. These are made of silk or net, and are covered with natural flowers. A young belle at Saratoga has a different one every day. Pea blossoms of white, pink and pale lilac are exquisite for covering these pockets. Another delightful addition to the female toilet is a wide illusion or tulle scarf which is worn around the shoulders, crossed over the breast and tied with long ends behind. It is lined with flowers through the center, and is finished at the breast and in the knot at the back by clusters of bloom with trailing foliage.

Hand bouquets are made very large, loose and flat one side. Field daisies and roses are very fashionable, the former flowers predominating. Considerable

trailing foliage, such as asparagus and vinca, is placed at the top, and among this geranium leaves are disposed in a cluster. The daisies follow, and below near the stems are pink roses. Souvenir d'un Ami is used with good effect just now in hand bouquets. The choicest hand bunches are made of gardenias and stephanotis, with a few Puritan roses. The white bouquet is very stylish for full dress occasions. In fact, there is a prevalence of white bloom in all the best designs and arrangements, excepting for funerals, when high colored flowers are more demanded than any other.

Longiflorum lilies and Yucca blossoms are very fashionable for table decoration and for room embellishment. Table centers are all high, a pyramid of lilies surmounted by a spike of Yucca bloom being popular. High silver dishes and tall rush vases and baskets are built up with large flowers in a very conspicuous way. Pond lilies are used with longiflorum and gladiolus. Yucca blossoms with these flowers are very imposing in the graceful flower-holders now fashionable. Favors at dinners have disappeared and will not be revived probably before winter.



NEW FUNERAL DESIGN

Fred Gordon has introduced the funeral design here pictured; it is very rich and suitable for laying on a casket, and will undoubtedly have a run. The piece as here represented is made up of oak leaves with a laurel branch. But Mr. Gordon has made it up of flowers—one wreath of Jacqueminots, one of Mermets, and one of bride roses, with a rose branch piercing the wreaths.

A leading florist at a large hall to be given at the height of the season at a fashionable watering place will form an ice rockery such as has been made but once in this country, but is frequently done in London. I was privileged to see an ice rockery arranged at a fete where the Prince of Wales was to be present. There were some tons of ice placed in the center of a pool filled with aquatics. Blooming plants, ferns and quantities of rich flowers were placed among the pure, glittering cakes of ice, over which colored lights were thrown.

Very few flowers are employed around walls and cabinets in room embellishment. There is one fine effect as a rule, and this is made with fine plant specimens. High vases are filled with lilies, and placed before mirrors and mantels, which have only end pieces of flowers arranged in a high severe style.

Alex. McConnell made a rich lyre last week for the funeral of a representative railroad official. It was of hybrid roses, the strings of purple chenille. Wreaths continue to be the favorite floral design. Thorley made an entire cover to a casket

of pansies, which were black, bronze and purple. It was very elegant and a neat piece of work.

New York Retail Prices.

Perles, Niphetos, Souvs, Bennetts, \$1 a dozen; Mermets, \$1.25; Cocks, \$2; La France, Jacques, \$1 to \$1.25; Bon Silenes, 50 cents; Magna Charta, \$3; carnations, 40 cents; Lily of the valley, \$1.25; gladiolus, \$2; Lilium longiflorum, \$3.

Queen Victoria's Jubilee Bouquet.

This was about five feet in height, and was composed entirely of orchids. The dark forms of Cattleya mossiae and C. Mendelii composed the lower tiers, the colors being graded lighter to the apex. The crown which surmounted the whole, and which was composed mainly of Oncidium Marshallianum and Dendrobium suavisimum, stood on a cushion of flowers of Cattleya Warneri and C. gigas. On one side of the bouquet the letters "V. R. I." were traced in flowers of the orange scarlet Epidendrum vitellium majus, and a cross of the same brilliant flowers surmounted the crown. The main body of the bouquet contained only the finest specimens of the choicest varieties of orchids.

The Florists' Club of New York.

A Florists' club was organized in New York July 6, with an initial membership roll of twenty-eight members and the following officers elected: John N. May, president; H. A. Siebrecht, vice-president; W. S. Allen, secretary, and Peter Henderson, treasurer. A large number of names are proposed for next meeting, which will occur at the rooms of Young & Elliott, 54-56 Dey street, July 20, at 3 P. M.

It is hoped that the attendance of those interested will be large, as the question of "how to get to Chicago in August" will be settled. A committee previously appointed to confer with the railroad companies in regard to rates have received an offer from the Baltimore & Ohio road of reduced rates and a special train, if New York and Philadelphia will guarantee 100 delegates. The party will have the privilege in this case of stopping over a few hours at two or three of the principal cities on the route. This would make the journey a very pleasant one. It is hoped that at the next meeting the roll of members signifying their intention of going will be large enough to enable the committee to close with the offer above named.

The Philadelphia club deputed President Craig and Secretary Farson to attend the first meeting of the New York club and extend the best wishes of the Quaker City florists, and they received a hearty welcome. Though New York is last in the list of starters, it will not be last in the race if it takes hold with the energy which it certainly possesses. The present indications are that the delegation from New York and vicinity will be even larger than it was at Philadelphia. Keep the ball rolling for '88.

ATLANTA, GA.—P. J. Berckmans will erect 2,500 feet of new glass this season.

BIRMINGHAM, ALA.—C. H. Reed will build a first-class new house \$20,000.

KANSAS CITY.—R. S. Brown is tearing down several old houses and erecting four new ones in their place, covering a ground surface of 69 x 110.

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remember this.Advertisements for August 1 issue must
REACH US by noon, July 25. Address,

THE AMERICAN FLORIST CO., Chicago.

Catalogues Received.

E. H. Krelage & Son, Haarlem, Holland,
land, Dutch bulbs; A. M. C. Jongkindt,
Coninck, Dedemsvaart, Holland, bulbs;
Michael Rains & Co., London, Eng.,
bulbs; R. J. Halliday, Baltimore, auction
plants; Hitchings & Co., New York, hot
water boilers; the Telemeter Co., New
York, electric indicating and recording
thermometers; S. Weeks, Chicago, hot
water boiler; J. M. Thorburn & Co., New
York, Holland bulbs.

OUR PLANT TRADE REPORT. A number
of the reports sent in could not be
used, from the fact that they were not
signed, and it was impossible to discover
from whence they came. In sending in
a report of any kind, always sign your
name and city plainly, or the report is of
no value whatever. The post-marks on
the envelopes are usually so imperfect as
to be of no assistance whatever in the
matter.

A Candidum Fungus.

Mr. Wm. Armstrong, Canton, Pa., recently sent us a few buds of *Lilium candidum* badly affected by fungus. He said: "They began to wither around the stalk near the ground, and now they are all blasted." The buds were sent to Prof. A. B. Seymour, cryptogamic herbarium of Harvard university, Cambridge, Mass., who sends us the following in regard to it:

"I have examined the specimen sent by Mr. Wm. Armstrong, and find in it abundant mycelium of a fungus, which I believe to be the cause of the injury, and a little mycelium of another kind which probably follows the disease, but has no part in the cause. Neither is fruited, and without the spores it is impossible to determine what it is; but the first is possibly one of the large number of species classed as Mucedines or white molds. The mycelial threads are in active growth, distended with protoplasm, knotted, bent and interwoven, winding their way among the cells of the lily. Both petals and stamens contain them.

"Since in its present, the vegetative stage, the fungus is entirely an internal parasite, and only the fruit, perhaps not that, would be external, no remedy can reach it. The only thing I can suggest is to use means to save other plants from infection. This would require the destruction of all infected plants or parts of plants, and if possible the removal of all the healthy plants to another place. The latter should then be watched closely, and any part showing evidence of disease removed and destroyed, as before. The earth and place not occupied would probably not be infectious to some entirely different plant. If the spores are wanting on all the plants, as in the one sent, there is more hope of checking the disease than there would otherwise be."

Wholesale Markets.**Cut Flowers.**

BOSTON, July 9	
Roses, Tens.....	1.00
" Parry.....	1.00
" Jacques.....	1.00
Lily of the valley.....	1.00
Carnations.....	.50 to 1.00
Sweet Peas.....	.25
Stocks, various, cut-stalked, mignonette, feverfew, etc., in limited quantities at purchasers' prices.	

NEW YORK, July 9	
Roses, Perles, Niphotos.....	\$100 4.00
" Mermets, Benetts.....	30.00 4.00
" Benetts, Benetts.....	3.00 to 4.00
" La France.....	3.00 to 4.00
" Jacques.....	3.00 to 4.00
" Benetts, Benetts.....	.50 to 1.00
Carnations (long stems).....	.25
Lily of the valley.....	6.00
Smilax.....	15.00

CHICAGO, July 11	
Roses, Perles, Niphotos.....	3.00
" Mermets, Benetts.....	4.00
" Benetts, Benetts.....	1.50
" Am. Beauty.....	1.00
Carnations.....	1.00
Smilax.....	18.00
Sweet Peas.....	.25

PHILADELPHIA, July 9	
Roses, Perles, La France.....	\$3.00
" Niphotos, Benetts.....	4.00
" Tens.....	2.00
" Jacques.....	4.00
" Cooks, Mermets.....	1.00
" Benetts, Benetts.....	30.00
Carnations.....	.25 to .60
Heliotrope.....	.25
Smilax.....	20.00
Callas.....	30.00

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☞ Re Seed Trade.

Newspaper Seed Premiums.

The following circular, which is being sent to the seed gift newspapers and others throughout the country, explains itself.

The seed sown by the FLORIST in its first issues, in which it took a most advanced position on this question, seems to have borne good fruit and likely to result in the final complete overthrow of this pernicious practice:

AMERICAN SEED TRADE ASSOCIATION, SECRETARY'S OFFICE, June 30, 1887.
DEAR SIR: At the convention of the American Seed Trade Association held in Philadelphia, June 14, the following preamble and resolution was unanimously adopted. Not knowing whether or not it has been your practice of distributing seeds, as therein stated, I take the liberty of mailing you this copy.

WHEREAS, It is the sense of this association that the plan adopted by certain newspapers of distributing seeds as premiums or gifts to their subscribers is very prejudicial to the interests of the seed trade; and

WHEREAS, This is as well as any other free distribution of seed tends to create the impression in the minds of the public that seeds have no commercial value, and that all seeds, irrespective of the care taken in their production, are reduced to one common level; therefore

Resolved, That this convention as a body, and each member individually, do hereby pledge themselves to withhold from all papers publishing this practice any and all advertisements during the ensuing year, unless upon the written guarantee that such distribution shall be discontinued; and that the secretary forward a copy of these resolutions to every member of the Seed Trade Association, and to every agricultural and horticultural paper published in the United States and Canada, and also to such religious and secular papers as have adopted the plan which we aim to discontinue.

Would be pleased to have your reply on the inclosed slip. Yours respectfully,
ALBERT McCULLOUGH, Sec'y.

A REPORT reaches the FLORIST that Mr. James Reid is now interested in the A. B. Cleveland Co.

CINCINNATI.—An echo of the fire at the seed house of J. M. McCullough's Sons last December has just come from the United States court, where that firm sued the Citizens' Insurance Co. of New York and the American Fire Insurance Co. of Philadelphia, to recover \$5,000 and \$7,000 respectively on policies held by them in those companies at that time.

New York.

Klunder has gone with his family to Newport, instead of Europe.

This is the first season that *Yucca filamentosa* has been used in decoration by our florists. Why is it that this plant is not more cultivated? It is perfectly hardy, delighting in a dry rich soil. Its immense spikes of white salver-shaped blossoms are the most effective of any thing in the garden.

The orange-colored milkweed, *Asclepias tuberosa*, is making good Long Island meadows.

Bunches of Puritan roses declare the fulfillment of the promise for this flower. It will probably supply the long-felt need of a pure white rose for the trade at watering places.

The combination rose sale that finished the summer auctions at Young & Elliott's was the largest and best sale that has ever taken place here. Twenty thousand plants sold at prices at least 25 per cent. above the wholesale rates.

W. S. Allen will soon remove to 36 East Twenty-third street, where his accommodations will be admirable. He is expending some \$25,000 in fitting up his new store.

All but three or four of the leading florists are closing their stores from noon Saturdays. Alexander McConnell closed from Saturday until Tuesday, over the 4th of July.

The Horticultural society is in a dilemma as to where to hold their fall show. The wax figure combination did not work well, and there are no large halls that can be hired.

John Thorpe has a fine tract of fourteen acres at Cedarhurst, where sixteen houses will be erected this summer. He will grow chrysanthemums, tuberous rooted begonias and winter foliage plants especially, and proposes to give a monthly exhibition of current bloom.

The windows of floral shops present a marked contrast now to their midwinter display.

There is a large demand for boxes of cut flowers from both watering places and private residences out of town. Former seasons wild flowers have been used to the exclusion of selected bloom for decoration. This year the inclination is to combine.

Cincinnati.

A novel canopy made by Huntsman for one of the last of June weddings was of smilax and lilies wreathed with orange-tinted candelabras.

A mammoth combination funeral piece was made by Sunderbruch. It was a cross over five feet high, covered with ivy leaves. In the center was affixed a heart of La France buds, and just below that an anchor of balsams and Niphetos roses. Upon the fern-covered base rested a sheaf and sickle, and at one corner was a cluster of magnificent roses. It was a case of "many in one," and no mistake.

A helmet of buds, smilax, bouvardia and anemones was the handsome design made by Gardner for the bier of a Knight of Pythias, the visor solid white and the base of immortelles. The emblem of the uniform rank is a calla lily, and as they are out of date, the florist made one out of small flowers. A scarlet plume surmounted the design.

Rustic hats filled with flowers were among the floral novelties of the commencement season.

Cincinnati florists are planning a raid upon Chicago during the week the Society of American Florists meets there.

A column of flowers six and a half feet high, upon which leaned a floral ladder, was a handsome design made by Gardner. The date of birth was shown at the base of the ladder, and that of death at the top.

REN McFORD, JR.

Primula Obconica.

Like many other primulas, *P. obconica* resents division of its crowns in order to raise a stock of plants. It can be grown by this means, but it will give general satisfaction. If the plants are divided before they are allowed to flower, then a certain success will without doubt be insured, but if they are exhausted by flowering for some months before they are operated upon, they will not give satisfaction afterwards. Disappointment arising from this method of treatment the first season led us to select a number of plants for seed bearing, which is decidedly the best method of maintaining a stock of healthy plants for flowering at any period of the year. Healthy plants selected now in full bloom and placed on a shelf in a dry position will without

further trouble produce abundance of seed. New seed germinates freely and quickly; old seed is useless, because it will not grow. If seed is sown as soon as it is ripe from the plants selected now, some strong flowering plants will be produced by June next year. From seed sown at the end of July or August, and again the following February, a succession of flowering plants for the whole year will result. Raising plants from seed is not only the quickest, but the easiest method. We have used many plants for rooms during the past winter, and found them invaluable for grouping in any light position. For large houses that have to be furnished all through the winter with thousands of flowering plants, it is decidedly the best. Plants brought into flower in October in 6-inch pots are still in full beauty, and have never been removed from the structure in which they were then placed.

The seed should be sown on the surface of fine soil, fully half of which is leaf mold that has passed through a fine sieve. Water the seed gently with a fine rose can, cover the pan with a square of glass and place it in a temperature of 60° to 65°. If the seed is new, germination will soon take place; the older the seed the longer it is before it germinates. Grow the seedlings on a shelf close to the glass until they are large enough to be pricked off singly into other pans. If the seed is sown now, the seedlings must be shaded; this is not necessary if sown earlier in the year. After growth has commenced they should be gradually removed to cooler quarters, and finally to cold frames. They enjoy a little heat in their early stages, say until the month of May; that is, they should be raised early. Those raised in autumn will do well in a winter temperature of 45° to 50°, may have greenhouse treatment from early spring, and can be placed in cold frames after the middle of April. The winter temperature given will suit well those intended to flower from October throughout the winter. To be brief, the soil and treatment that will grow Chinese varieties will suit *P. obconica* exactly. They can be grown together under the same conditions until established in their flowering pots, when *P. obconica* can be placed in a sheltered position on a bed of ashes outside.

Like all the other members of the large primula family of plants, that under notice strongly resents exposure to bright sunshine. Under these conditions it will not thrive, and soon becomes a prey to red spider. When placed outside they should have a northern aspect, and the surrounding atmosphere should be kept moist. With Chinese varieties bright sunshine soon produces a yellow sickly appearance of the foliage, and the same quickly takes place with *P. obconica*.—*N. G.*, in *Journal of Horticulture*.

BROOKLYN, N. Y.—The Beecher statue fund has reached over \$23,000. It is said by a prominent sculptor that a proper statue without the pedestal can be made for about \$20,000. The park commissioners are willing that it should be placed on the green plaza in city hall square if the fountain and coping are not disturbed. If it should be placed there, Florist Julius J. Heinrichs will make a flower bed around it to keep it in order at his own expense. At the next meeting of the executive committee a sub-committee will suggest the name of a prominent sculptor as the proposed designer.

Trade Notes.

TOLEDO, O.—A new house, 12 x 80, will soon be added to the place of John Wilson & Co.

ERIE, PA.—Henry Niemeyer & Co. have completed a greenhouse 32 x 100, to be used for roses.

NEW HAVEN, CONN.—A chrysanthemum club has been formed among the ladies of the city, and an exhibition will be given by the club the coming fall.

SAVANNAH, GA.—A. C. Oelschig intends to build this summer a house 16 x 100, covered with parchment paper, instead of glass, for camellias and azaleas, as an experiment.

UTICA, N. Y.—Wm. Matthews will soon build three new houses—one 70 x 14, one 165 x 14, and a propagating house 30 x 10—all to be heated by hot water on the "down hill" plan.

SPRINGFIELD, O.—Thomas A. McBeth has sold his greenhouses and stock to Good & Reese who will add a new range of glass and do a mailing trade under the title of the "Champion City Greenhouses."

NEW ORLEANS.—The florists of the city are agitating through the N. O. Hort. society a project to establish a new and plant market. At the meeting of the society June 16, a paper was read setting forth the advantages of the same, and a committee was appointed to consider the subject and recommend a course of action.

MONTREAL, CAN.—The Montreal Hort. society instituted a new departure in its useful work by giving an exhibition of strawberries, roses and pansies June 30, the first of the kind ever given by the society. The display was excellent, including collections of orchids in bloom, choice palms, etc., in addition to the main features.

PHILADELPHIA.—Crackmens broke in to the office of E. T. Alburger & Bro., florists, Ridge avenue and Huntington street, during Thursday night and drilled and blew open a fireproof safe. All they got for their trouble were two promissory notes of no value to them. And still the daily press continue to spread the stories of the fabulous wealth accumulated by florists.

KANSAS CITY.—Gugel & Gregorins, of Wyandotte, have dissolved. Mr. Gugel will continue the business having purchased the interest of Mr. Gregorins. Plant trade was unusually brisk this spring; cut flower trade has also been good. Henry Gugel is building three new houses, two for cut flowers and the other for plants. Richard Jarrett has returned from England and is now building three new houses at his place.

PROVIDENCE, R. I.—The R. I. Hort. society gave its June exhibition of roses, strawberries and cut flowers June 23. It was the best exhibition of roses ever given in this city and is claimed to be superior to that recently given in Boston. The roses were in greater variety and more new ones were shown than ever before, and the quality was excellent. Prizes for roses were awarded to R. W. Park, F. E. Richmond, Robt. Johnston, J. J. Cady, F. S. Arnold, H. C. Clark, N. D. Pierce, Jr., T. K. Parker, Walter McNaughton, Wm. Hoffman and E. R. Slocum.



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Carpet and Ornamental Flower Beds.
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This, our SEVENTH EDITION, consists of over 100 designs, finely engraved on good paper, nicely bound, sent free to any address on receipt of Price, \$3. GEO. A. SOLLY & SON,
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workmanship. Twenty-one other varieties.
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with order, during July only, at these very low prices
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8 1/2 inch, 85¢; 9 1/2 inch, 85¢; 10 1/2 inch, 85¢; 11 1/2 inch,
85¢; 12 1/2 inch, 85¢; 13 1/2 inch, 85¢; 14 1/2 inch,
85¢; 15 1/2 inch, 85¢; 16 1/2 inch, 85¢.

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1180, 200, 202 & 204 Market St. CHICAGO, ILL.

Chicago.

Messrs. Hovey & Co., the Wabash avenue florists, dissolved July 1. Mr. Hovey retires, his interest having been purchased by Mr. Frank F. Bentley, the junior partner of the old firm.

A few asters are making their appearance on the market.

The market is at present loaded with garden flowers, which do not meet with very ready sale. Roses are in good supply; sweet peas sell well at 25 cents for bunches of twenty-five blooms.

Flowers are at present retailed at the following prices per dozen: Perles, Niphotos, \$1; Jacques, \$1.50; Nemets, \$1.25; Cooks, \$1.50; American Beauty, \$3; carnations, 35 cents; gladioli, \$1.50 to \$2.

A large crescent wreath, made entirely of sweet pea blossoms, arranged by Frank Bentley, made a handsome piece. Several colors were used, but each kept separate.

A controversy over a sweet pea, of which the name is not known, is disturbing the serenity of some of the gardeners. It is a white and pink variety, somewhat like painted lady, but better colored. The gardener who has it watches his garden at night with a gatling gun, for fear some of his competitors will steal some seed.

Mr. Chas. Reissig is erecting at his place at Riverside an unique house for orchids and tropical plants. The house is circular in shape, being built around the circular house which covers the supports to his wind-mill, pump and water-tank. It is divided into three compartments, with the heating apparatus arranged to supply different degrees of heat in each, making really three houses. The first compartment will be a cool house, the second for intermediate, and the third for stove plants. The floors are all cemented, with gutters to hold water and maintain an even degree of moisture. The hot-water pipes are packed with rubber rings, which is claimed to be an improvement over the usual method of packing. Mr. Reissig has purchased a large number of choice plants, importing quite a number from England, and intends to have one of the finest collections owned by any commercial establishment in the west. He will grow a large number of orchids for cut-flowers.

Bulbs! Bulbous Roots!

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The only growers of whose firm there resides a member in the States.

Price list free on application. Address

P. O. Box 3118, New York City.
Hyacinths, fine mixed, per 100, \$1.00;
Tulips, fine mixed, per 100, \$1.00.

Hyacinths, Tulips, Crocus, Narcissus

AND OTHER DUTCH BULBS.

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LARGE BULBS.
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HYACINTHS.
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Write us if you want any of the above, as all the plants are strong, in fine condi-
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V. H. Hallock, Son & Thorpe,
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READY AUG. 15 TO 20,

A large stock of selected
ROMAN HYACINTHS, LILUM HARRISII,
FREESIA REF. ALBA, and a fine line of 15
varieties forcing Narcissus, dbl. and sgle.

READY SEPT. 1 TO 5,

Lilium Candidum, large bulbs; also a full assortment of
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Send for Price List, now ready.

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Reliable Goods at Moderate Prices.

Cable orders receive prompt attention.

CABLE ADDRESS, "POLMANMOY, HAARLEM."

Trade Notes.

GREAT NECK, N. Y.—Geo. Matthews has built two new houses, 100 x 20.

PHILADELPHIA.—Craig & Bro. have made plans for a new house 215 x 22.

ST. LOUIS.—The Ellard Floral Co. will this season erect four new houses, 20 x 104 each.

NEW ORLEANS.—Maitre & Cook have built two new houses, 18 x 100 and 14 x 125 respectively.

OAKLAND, CAL.—A new house, 100 x 25, will be added to James Hutchinson's place this season.

RAY RIDGE, N. Y.—Four new houses, 60 x 20 each, have been added to Ditzenger Bros.' place.

NEW BEDFORD, MASS.—E. S. Haskell contemplates adding 6,000 feet of glass to his place this summer.

FLATBUSH, N. Y.—Andrew Harth has built a new rose house, 90 x 20, and Alfred Demensy a rose house 100 x 22.

MINNEAPOLIS.—R. J. Mendenhall will this summer build two new houses to cost, complete, \$5,000.

LONDON, ONT.—The demand for good plants and the taste for planting out is increasing generally here.

MUSCATINE, IA.—Three new houses, each 11 x 60, will be added to the establishment of C. Kranz this summer.

NASHVILLE, TENN.—M. Tritschler & Sons have three new houses complete with the exception of heating apparatus.

MILWAUKEE, WIS.—J. T. Bartlett has opened a floral store at 208 Grand avenue, with greenhouses at Oconomowoc.

MADISON, N. J.—James Ryan has erected a new rose house, 150 x 18, which will be heated by a Scollay hot water boiler.

WEST NEWBURY, MASS.—C. B. Gardiner, a well-known florist of this place, died June 26, of "enlargement of the heart."

PITTSBURGH.—A. R. Reineman & Bro. will rebuild their whole place (25,000 feet of glass) this summer, and will use natural gas for fuel next winter.

DES MOINES, IA.—I shall not build any this season. Too many one-horse greenhouses here now. Too many "immatures" in the business here.

DETROIT, MICH.—John Breitmeyer & Sons will build five new houses at Mt. Clemens, three 150 x 20, one 192 x 20, and another 192 x 12. Will be used for roses, smilax and violets.

GRAND RAPIDS, MICH.—Plant trade was very satisfactory. F. A. Chapman will build several new houses. T. R. Kenwick will build two new houses, 100 x 20 each, for cut flowers.

BROOKLYN, N. Y.—Philip Zeh & Son have granted their employees a half-holiday every Saturday. At a meeting of the "Greenwood Gardeners' Protective Union" a vote of thanks was tendered to the firm for their action.

OSHKOSH, WIS.—The Winnebago horticultural society held its first annual summer exhibition here June 15. A most creditable display was made, the building being converted into a veritable greenhouse, though only \$100 was offered in premiums.

WORCESTER, MASS.—The exhibition of the Hort. society held June 23 was a magnificent one. Rarely has there been seen here so fine a collection of roses, in such variety and such handsome specimens. First premium was awarded to Mrs. T. L. Nelson for a remarkably fine exhibit. The display of other seasonable flowers was also large.

MEMPHIS, TENN.—We are having unusually dry weather. No rain for several weeks and the mercury 103° in the shade at noon. Florists who have a scanty supply of water are short of flowers. If this weather continues, many plants will be lost. The Memphis Floral Co. has changed hands. Some effort is being made to have a chrysanthemum show the coming fall. A wedding canopy of ferns and Clerodendron Balfourii suspended from the ceiling together with a large anchor was a novelty made by Henry Moore for a recent wedding.

SHEAVES.

MADE OF THE FINEST ITALIAN WHEAT.



STANDING

AND

FLAT,

AT

Exceedingly low figures.

Write for SAMPLES

TO

ERNST KAUFMANN,

Importer and Manufacturer.

113 North Fourth Street, PHILADELPHIA.

PANTRIES ONLY! The grandest collection ever the latest NOVELTIES. Our Seed is warranted to be Fresh, Pure and strictly First Class. Send for new Circular and Special Price List to the Trade.

ALBERT BENZ, Douglaston, N. Y.

COMMERCIAL HOTEL

Corner Dearborn and Lake Streets,

CHICAGO.

Offers unequalled facilities to Delegates to National Convention.

Engage your room now, either by letter or telegram, at expense of the house. This Hotel is one of the largest and finest houses of its class in the country, having a fine south and east frontage, passenger elevator, electric lights, bath rooms and all modern improvements.

RATES \$2.00 A DAY.

C. W. DAHL & CO.,
Proprietors.

CLIFTON HOUSE,

Wabash Avenue and Monroe Street,

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Centrally located, elegantly furnished, elevator and all modern improvements.

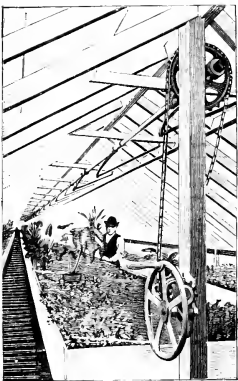
RATES \$2.50 PER DAY.

Special Rates to Delegates to Conventions.

WOODCOCK & LORING,

PROPRIETORS.

Challenge Ventilator.

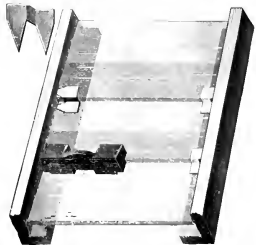


Without a rival either in Cost, Speed in operating or Security in case of storms.

No Liability to Break or get out of order.

Simple in construction, perfect in operation

R.D. Write for prices and circulars to

QUAKER CITY MACHINE WORKS,
RICHMOND, IND.H. W. EAMES & CO.'S
PATENT TWIN
GLAZIER POINTS

A USEFUL INVENTION

The twin point at the upper left hand corner of cut represents the full size of points, while the tool that is used for pushing the points into the window frame is shown on the cut.

No more Leaky Skylights! No more Slipping and Breaking of glass in Greenhouses or Farmers' Sash.

These points the manufacturers claim are far superior to the old mode of setting glass, as they will hold each pane in place, thus not allowing the glass to slip, causing bending and consequent cracking. Each box contains 50 rights and 50 lefts. The manufacturers also make a tool for driving the points. These points are the cheapest and best, and most durable in the market, as testified to by many farmers in every State in the Union. Sold by most prominent seedsmen in the country. If you don't find them at your supply stores, send direct to the manufacturers as we have made arrangements with the Adams Express Co. for box rate and express charges to promote private trade, so you need not fear charges will be too high. A Liberal Discount to the Trade.

Price 35 cents a box. Tools 15 cents each. Address all orders and communications to the manufacturers.

H. W. EAMES & CO.,
Milford, Mass.
Preserve this advertisement for future reference and send for samples before you do your building and repairs.

Mention American Florist.

RALL: CATALOGUES

Printed in a superior manner, with plentiful use of the cuts of **BULBS** and other seasonable stock, by

THE FLORIST-PRINTER.

Who has long experience and the best facilities. **CORRECT AND ELEGANT WORK GUARANTEED.** Send for estimates for anything you need, to

J. HORACE MCFARLAND,
Printer for Nurserymen, Florists, and Seedsmen,
HARRISBURG, PA.

"New York, May 17, 1887. * * I am honored to find that you thoroughly understand the art of Catalogue Printing." C. H. JOOSTEN.

FREEZIA BULBS.

SPECIAL LOW OFFER.

Very strong, Boston grown bulbs of this charming fragrant white flower, invaluable to florists. No more quality of these bulbs ever offered.

100 Bulbs, postpaid..... \$ 3.50
1,000 Bulbs, postpaid..... 32.50

25¢ Smaller bulbs cheaper, prices on application

R. & J. FARQUHAR & CO.,

BULBS AND CHOICE SEEDS.

BOSTON, - MASS.

ORCHID GROWERS, ATTENTION!

EUREKA ORCHID FIBRE.

Something entirely new, and the most perfect material in which to grow orchids ever discovered. It is nearly as tough and elastic as a sponge, will keep sweet longer, and outlast any swamp peat ever offered.

Sample (with prices) sent by mail on receipt of 10c.

E. D. STURTEYANT,
BORDENTOWN, NEW JERSEY.

Smilax and Carnations.

Good Smilax can be supplied to the trade all summer.

Carnations forets also in large numbers.

THOS. F. SEAL,
UNIONVILLE, Chester Co., Pa.

RHODODENDRONS

Bring the representatives in the U. S. for Messrs.

Jno. Watterer & Sons,
The great English Rhododendron growers, who are prepared to furnish Rhododendrons of all sizes, and in any quantity, at prices lower than ever before offered in this country. Orders must be solicited for spring delivery. Prices on application.

B. A. ELLIOTT CO. Pittsburgh, Pa.

NEW COLEUS.

HARRY HAROLD AND THE MIKADO.
They make elegant exhibition plants. They put sell any Coleus ten to one. We guarantee them first-class. The pair by mail, 25 cents; either alone, 12 cents.

THOS. G. HAROLD,
KINGSTON, Somerset Co., Md.

PELARGONIUMS

30 named varieties 2½ in. pots..... 50 cts.
Carnations, collection 200 varieties..... 1.00
Fuchsias, collection 20 varieties..... 1.00
Verbenas, collection 25 varieties..... 1.00
Roses, Perf. Nigrette, Mercuries, Bon Solene, etc..... 2.40
2½ in. pots..... 40 cts.

SEND FOR TRADE LIST.

HENRY C. KEGLEY.

Cedar Rapids, Iowa.

OUT WITH THE LATEST!

CARNATION - CULTURE

No Carnation Grower should be without this book. The only standard work in Europe or America, and is recognized as authority on this important plant. Price, 15¢. Table of Contents free.

LORA L. LAMBORN,
Box 592, Alliance, Ohio.

50,000 CUT FERNS.



From 10 to 15 inches long, of a beautiful dark green, used for bouquet work, filling flower baskets, &c., &c. \$1.50 per 1000 Ferns.

SPHAGNUM

or Packing Moss constantly on hand; long clean fiber. Dry or Green.

\$1.00 per bbl. or six bbls. for \$5.00. Bouquet Green, \$2.00 per bbl.

One Million WHITE DAISIES and BUTTERCUPS carefully packed in damp moss, \$1.00 per thousand either kind

L. B. BRAGUE,
HINSDALE, MASS.

SMILAX.

100,000 extra strong young smilax plants for summer planting, for sale cheap. From 25¢ in. pots, \$3.00 per 100; 3½ in. pots, \$4.00 per 100; 5 in. pots, \$5.00 per 100.

Asparagus-Tennissims, per 100, \$5; per 1,000, \$25

PAUL BUTZ & SONS, New Castle, Pa.

Verbenas, Pansies, Coleus.

VERBENAS, from pots,..... 33.00 per 100
COLEUS, " " " "..... 3.00 " 100
PANSIES, " " " "..... 3.00 " 100

Wm. Desmond,

KEWANEE, Henry Co., ILL.

WE SELL

EVERYTHING FOR FLORISTS.

Plants, Bulbs, Seeds and Requisites.

If you do not already receive our **Quarterly Wholesale Price List**, please send name and address and it will be regularly mailed.

PETER HENDERSON & CO.,
35 and 37 Cortlandt Street, - NEW YORK

SOW NOW FOR EARLY FLOWERING IN SPRING.

ROEMER'S PANSY SEED.

#1 The Finest Strain of Pansies in the World. 71 PRIZE PRIZES AWARDED. WHEREVER EXHIBITED. Assortment of 38 splendid varieties in one pkt. 50¢. All varieties, Finest Mixed, per lb. \$7.00; 100¢. Carefully saved only from named EXHIBITION FLOWERS, mixed per 10,000 seeds \$3.00; 100,000 seeds 30¢. Giant Show Improved Tamaraut, the flowers have a diameter up to 4 inches; splendid mixed, per oz. \$11.25; 10,000 seeds \$9.00; 100,000 seeds \$10.00; pkt. 25¢. Giant Fancy, very attractive fine colors, splendid mixed, per oz. \$15.00; 10,000 seeds \$11.25; 100,000 seeds \$12.00; pkt. 25¢. Giant Fire Spotted, New. The ne plus ultra of all varieties; per oz. \$20.00; 10,000 seeds \$15.00; 100,000 seeds \$16.00; pkt. 25¢. Full trade orders post free on application.

FRED ROEMER, SEED GROWER,
QUEBLINBERG, GERMANY.

SHEET MOSS AND WILD FERNS

We have the control of a very large territory that is the home of these indispensable requisites for the florist, and can furnish them in large or small quantities

Fresh at All Seasons.

The SHEET MOSS is the best that has ever been offered. It is clean, free of soil and in large sheets, bright green, and keeps well. Each piece rolled and packed in large coffee sacks; the weight is about 50 pounds each. Florists will find this moss very useful to finish the top of

DESIGNS OR BASKETS

over a filling of Straw, Excelsior or any other light stuff.

Price \$2 per sack; 5 sacks \$8; 10 sacks \$15.

WILD FERNS, best sorts, box 500, \$1; 1,000, \$1.50; Special Price on large lots.

CRITCHELL & CO.,

CINCINNATI, OHIO.

JOHN LAING & SONS,

Seed and Plant Merchants,

FOREST HILL, LONDON.

ENGLAND.

TUBEROUS COLLECTION.

We announce without fear of contradiction, that OUR Collection is by far the largest, finest in quality, and the most complete in the world. The form, substance, and color of our flowers are unapproachable by any other raiser. It was remarked by many of our visitors and critics last summer when examining our beds of 100,000-out of doors, they could not find the inferior flower.

Three Gold Medals awarded. Tubers in a dry state can be safely transmitted from England in December. Patrons should order direct from us.

PRICES WHEN SELECTION IS LEFT TO US—

SINGLE VARIETIES.

A	Collection, named, our best collection, each doz.	Per doz.
B	" " " " " " " " " " " "	42s
C	" " " " " " " " " " " "	42s
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DOUBLE VARIETIES.

P	Collection, named, our best collection, each doz.	Per doz.
Q	" " " " " " " " " " " "	42s
R	" " " " " " " " " " " "	42s
S	" " " " " " " " " " " "	42s
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BEGONIA-SEED.

Gold Medal-strain saved from Prize Plants. New crop harvested in August. Seedlings. Choice mixed, from single varieties, 1s. and 2s. 6d. per packet. 2s. and 3s. extra large packets; double varieties, 2s. 6d. and 3s. per packet; large packets, 3s. Collections single—12 named varieties, separate, 3s. 6d.; named varieties, separate, 3s.

CALADIUM ROOTS.

The Finest Collection in England. Best named varieties, per doz.—3s., 4s., and 6s.

GLORINIA ROOTS.

Also in dormant state from England. ORIGINALLY COLLECTED. Self-colors, and spotted thrums. Best sorts to name: 1s., 2s., 2s. 6d., 3s., 4s., and 5s. per doz. Unnamed, very choice, 3s., and 12s. per dozen

GLORINIA SEED.

Saved from our Prize Plants; erect flowering, drooping, self, and spotted, per packet, 1s., 2s., 6d., and 3s.

OTHER FLOWER SEEDS.

The choicest strains of Primula, Cameraria, Fuchsiana, Cypripedium, Hollyhock, Dahlia, Pansies, Aster, Stocks, Everlastings, and every sort of Vegetable and Farm Seeds.

All kinds of Plants, Roses, Fruit Trees, &c., that can be imported from England, safely transmitted in Wardian cases.

Remittances must always accompany orders. Goods will not be shipped without prepayment. Flower Seeds by post. Orders should reach us not later than August or September.

Catalogues sent gratis and post free to all applicants.

JOHN LAING & SONS,

FOREST HILL,

LONDON, ENGLAND.

Overworked Florists.

The New York *World*, in its Brooklyn edition, makes its debut as a champion of overworked employes of florists. The *World* says:

Souful maidens and people of poetic temperament generally may be shocked to hear that some practical persons are protesting against a state of affairs which compels them to be among flowers nearly all the time except when they are sleeping. Kaptitious damsels who declare at appropriate occasions that they envy the people who have nothing else to do but handle the fragrant products of the hot-house, do not know whereof they speak. As a matter of fact, the lot of florists' employes is not a happy one, viewed from a purely ascetical standpoint.

While other wage-workers are being granted a half holiday on Saturday, the men who sell flowers make the modest request that they be given a respite from work on Sunday. They say nothing about an increase of salary or a decrease of hours on the other six days of the week. They simply ask that the first day of the week may be a day of rest in fact as well as in name. In all the labor agitation and early closing movements the florists' employes have been entirely overlooked. Apparently no one ever gave them a thought and they have toiled among the flowers without complaining until now.

In speaking of their troubles to a *World* reporter yesterday, one of their number said:

"I consider that we are without doubt the poorest paid and hardest worked class in the country. There are between two and three hundred of us in Brooklyn who toil from early in the morning until late at night every day except Sunday, when we work until one o'clock, for salaries ranging from \$7 to \$12 a week. Many of us commence business at 6:30 in the morning and remain working until 10:30 at night. We have practically no time to ourselves except Sunday afternoon, and then we are so tired we don't feel like going anywhere."

"There is really no excuse for keeping open on Sunday, for the business done is very little except at the cemeteries. People who want flowers for Sunday can buy them on Saturday and preserve their freshness by simply placing them on ice. You can therefore see that there is really no excuse for making us work when other people are resting. If a canvass of the employers were made I think they would agree to close on Sunday, but as long as one florist keeps open all will do the same. We are kept so busy that we have not had time to organize a society or union, but we will have to find time, I suppose, before we can gain our point."

"What is the necessity of florists opening their stores so early in the morning?"

"Well, people going to work often stop to give an order, but except in the spring when potted plants are in demand such orders are few."

"Do you deem enough business between 8 o'clock and 10:30 at night to justify keeping the stores open so late?"

"Not at all. In the winter time, or during the theatrical season, the latest business we do is with people who go to the theatre and call for a corsage bouquet or something similar. What is sold after 8 o'clock is not worth considering. Of course there are times when we are kept late working at big orders, but we have no complaint to make on that score. What we want mainly is to have one day out of seven to ourselves. We would like to have a rest on Sunday, and I think we are entitled to it."

FOND DU LAC, WIS.—Two new 50-foot houses will be erected this summer by E. Haentze, and possibly four.

LITCHFIELD, MINN.—The second annual floral exhibition of the Litchfield greenhouses will be held Aug. 2. A programme will be sent to any applicant.

BARABOO, WIS.—The summer meeting of the Wisconsin State Hort. society will be held in this city July 20-21. A very excellent programme has been arranged.

FOR SALE.

25,000 Azalea Indica,

15,000 Camellias.

Orders for full delivery now booked. For descriptive catalogue address,

C. H. JOOSTEX,

Importer of Plants, Bulbs & Seeds,

3 COENITIES SLIP, N. Y.

Mention American Florist.

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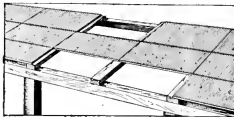
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THEY ARE AS

Cheap as Wood

—AND—

Every way Better



They will last a life-time and you will not be troubled with fungus from rotting wood. They transmit bottom heat better than wood.

Price, \$22.50 for 1,000 sq. feet of surface.

SLATES 1-3 IN. THICK, 20, 22, 24 INCHES LONG.

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NEW YORK AND NEW ENGLAND, SIEBRECHT & WADLEY, 409 Fifth Ave., N. Y.
FROM PITTSBURGH WEST, HILL & CO., Richmond, Ind.
CRAIG & BRO., 30th and Market Streets, Philadelphia, Pa.
CHAS. S. PRICE, Lansdowne, Pa.

THE

American Florist Company's

DIRECTORY

OF

FLORISTS,
NURSERYMEN,
AND SEEDSMEN,

OF THE

UNITED STATES AND CANADA.

1887.

PRICE ONE DOLLAR.

The most complete and accurate list yet published. The key designates the particular branch of the trade each one is engaged in. The street and number of those living in cities will insure the delivery of tons of catalogues which have hitherto remained dead in the office to which they were addressed. At this low price every one in the trade can afford to have a copy for reference. Address

AMERICAN FLORIST CO.,

54 LA SALLE ST., CHICAGO.

ESTABLISHED 1854.

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LARGEST STOCK IN AMERICA.

Enclose 2-cent stamp for our new catalogue, containing Practical Hints on growing the "Queen of Flowers." Over 50,000 fine plants to choose from.

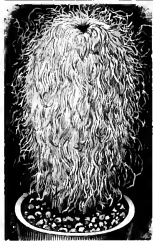
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Successors to

A. BRACKENRIDGE,

ROSEBANK NURSERIES,

Govanstown, Md. Baltimore Co.



THE OLD MAN

CACTUS

(Pilocereus Senilis.)

Only 50 Cts.

Plants that retail at \$1.50 to \$2.00 each.

Also 500 other rare varieties of Cacti.

Send for Catalogue and mention Florist.

A. BLANC & CO.
PHILADELPHIA.

New Pansy Seed, Crop 1887, will be Ready July 20th.

VAUGHAN'S PREMIUM PANSY.—Snow Queen, King of the Blacks, Odier, Emperor William, Fancy or Striped, Yellow Pheasant's Eye, Bronze, Havana-brown and other vars., per ½ oz. \$1.50; trade pkt. 50c.

VAUGHAN'S PREMIUM PANSY.—A splendid mixture comprising all of above and many other extra choice colors; per ½ oz. \$1.00, trade pkt. 25c.

CHICAGO PARKS BEDDING VARS.—Also a very good strain specially adapted for bedding purposes, in twelve distinct colors. Per oz. \$3.50; pkt. 15c.

CHICAGO PARKS BEDDING VARS.—In extra choice mixture. Per oz. \$5.00; pkt. 10c.

GIANT TRIMARDEAU.—The new, now well-known French Giant Pansy. We have a splendid strain of above, which we can specially recommend to florists. Per ½ oz. \$1.00; pkt. 25c.

J. C. VAUGHAN,

42 La Salle St., CHICAGO.

PANSIES.

Orders booked now for plants to plant your cold frames. My Pansies are SUPERB, being a selection from the Best Varieties in the world.

Price, 50c per 100; \$7.50 per 1,000. Also 1,000 Colours in September at reasonable rates.

ALBERT M. HERR,

Lock box 338, LANCASTER, PA.

SMILAX.

10,000 Strings of Smilax for the trade. Steady contracts solicited.

F. E. FASNETT & BRO.,
Ashtabula, Ohio.

CHRYSANTHEMUMS.

I am now prepared to furnish plants by the 100 or 1,000 of over 30 of the best varieties. Send for list.

ROSES.

All the leading foreign varieties. Contracts made now for delivery in May and June from our fine, healthy plants.

W. W. COLES,

Del. Co. Lansdowne, Pa.

ESTABLISHED : ORCHIDS.

40,000 FEET OF ORCHID CULTIVATION.

Special Offers for Three Months.

All the best flowering and best paying sorts in the following collections:

\$15.00	Collection, fifteen good plants, five varieties.
25.00	" twenty-five good plants, ten varieties.
35.00	" thirty-five " fifteen varieties.
50.00	" fifty " twenty-five varieties.
100.00	" one hundred and ten " fifty varieties.

SIEBRECHT & WADLEY,

Rose Hill Nurseries,

NEW ROCHELLE, N. Y.

NARCISSUS AND DAFFODILLS

Thomas S. Ware has pleasure in drawing the attention of the American public to his very extensive and most complete collections of these, which covers an extensive acreage, for sale this season including all the popular Forcing and Decorative varieties as well as the choice MODERN HYBRIDS.

Clematis in best varieties.

Industry Gooseberry.

Priced descriptive catalogue of these and many other choice

PLANTS AND BULBS

Will be mailed free upon application to

THOS. S. WARE,

HALE FARM NURSERIES.

TOTTENHAM, LONDON, ENGLAND.

Messrs. I. C. Wood & Bro., Fishkill, N. Y., have used "Grape Dust" to considerable extent. Mr. Wood says:

"We find it to do the work nicely. It leaves the foliage clean and is cheap."

Grape Dust Kills Mildew. Try It.

Address.

SLUG SHOT, FISH KILL-ON-HUDSON, N. Y.

SPECIAL OFFERS

For Fruit and Ornamental Trees, Shrubs, Small Fruits, Bulbs and other plants solicited by

FINK & CO., NURSERYMEN.

Apartado 484. CITY OF MEXICO, MEXICO.

SPHAGNUM MOSS,

Especially for Florist use. \$2 per bale. Best \$1.25 per bbl. Sheet or Log moss, \$2 per bbl. Pitcher plants, a Wisconsin novelty, \$2 per doz.

Lycopodium in its season at lowest prices per bbl. or ton.

Z. K. JEWETT, Sparta, Wis.

POT GROWN STRAWBERRIES.

We will have our usual fine supply ready about July 15th. Catalogue containing correct descriptions of the best Old and New varieties with cultural directions, mailed free.

ELLWANGER & BARRY.

Mount Hope Nurseries,

Rochester, N. Y.



Grind your own Bone,

Meal, Oyster Shells, GRAHAM FLOUR, and Corn in the \$5.00 HAND MILL. Wilson's patent. 100 more made in every POULTRY.

Also POWER MILLS and FARM FEED MILLS. Circulars and testimonials sent on application. WILSON BROS., Easton, Pa. Mention the AMERICAN FLORIST.

Delegates to the next THE Pullman Car Cing convention will travel via the

MONON ROUTE to AND FROM Louisville, Indianapolis, Cincinnati and the winter resorts of Florida and the South. For full information

call on or write to E. O. McCormick, Gen. Passenger Agt., Chicago.



Wm. Radam's Patent Process for Preserving Perishable Foods is the most perfect process on earth. It kills the fungus, or germs in the articles treated, and fermentation is stopped. Any quantity up to a car load can be treated at one time. Patented September 28, 1896. Send for circular to

Wm. Radam, Austin, Tex.

Mortar Rubbish for Violets.

A friend who grows violets very well tells me that he finds an application of mortar rubbish to the soil very beneficial. This is put on at planting time and well worked into the top soil, and wherever it is applied the growth of the plants is much more vigorous. In the case of tenacious soils, I could understand that the mortar rubbish would improve them by rendering them more friable, but my friend's garden being a light loam, points to the fact that lime is necessary to the welfare of violets, and it may be that a deficiency of this is the main or only cause why violets, in some places, are so difficult to grow. Last year I had occasion to remark how well violets thrive that come from self-sown seeds. This year plants that came up and were allowed to remain undisturbed flowered well. We do not look for effectiveness from the violet, unless, perhaps, in a cut state; but these plants were so covered with bloom that a bed of them on the grass would have been very attractive. What was remarkable about them was the dwarfness of the foliage which enabled the flowers to display themselves so well. There was an entire absence of that leanness that distinguishes the growth of violets in many places. This peculiarity I attribute to no manure having been employed, and to the position being an open one. I feel sure that in time the growing of violets from seed will become general. It is so easy to get up a stock in this way, and the thrifty nature of a seedling enables it to live where plants propagated in the usual manner fail.—J. C. B., in *The Garden*.

HILLSDALE, MICH.—This season Wellington Hughes will add a new house, 17 x 34. Decoration day was not quite up to last year. Rain in the early part of the day interfered with the proceedings. Quite a lot of garden and wild flowers were used.



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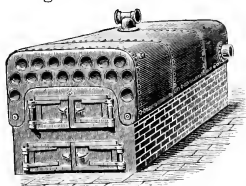
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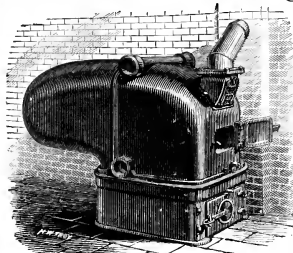
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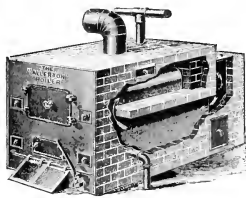
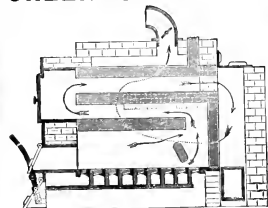
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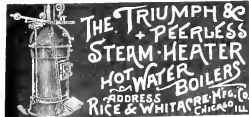
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Index to Advertisers.

Advertising Rates, etc.	497
Allen, W. S.	497
American Florist Co.	497
Baker Bros.	497
Baltimore & Ohio R.R.	497
Bayersdorfer, M. M. & Co.	497
Beckhorst & Co.	497
Benz, Albert.	497
Bianc, A.	497
Boyson, James L.	497
Bruckenknecht & Co.	497
Bruger, L. H.	497
Buddendorfer, Herman	497
Burr, Paul & Sons	497
Colles, W. W.	497
Crichton, H. P. & Co.	497
Crosscup & West King	497
Co., C.	497
Dalb, C. W. & Co.	497
Denkin, Rodt. T. & Co.	497
Desmoud, Wm.	497
De Veer, J. A.	497
Devine, Peter	497
Dickinson, Albert	497
Dillon, J. L.	497
Dreer, Henry A.	497
Eames, H. W. & Co.	497
Elliott, B. A. Co.	497
Ellwanger & Barry	497
Exeter Machine Works	497
Faughar, E. & J. J.	497
Fassett, F. E. & Bro.	497
Fink & Co.	497
Gardfield Park Rose Co.	497
Gawser, J. M.	497
Giddings, A.	497
Grimm, Jas.	497
Growth, Henry J.	497
Hales, H. W.	497
Hallack & Thorpe	497
Hammond & Hunter	497
Hammond & Slog Shot	497
Harold, Thos. C.	497
Hay & Frenette Co.	497
Heinrichson, Peter & Co.	497
Hennecke, C. & Co.	497
Herr, Albert	497
Higley, Henry & Co.	497
Hill & Co.	497
Hippard, E.	497
Hitchings & Co.	497
Hucker, H. M.	497
Huschel Bros.	497
Ives, J. H.	497
Jensen, Ed.	497
Jewett, Z. K.	497
Jonston, C. H.	497

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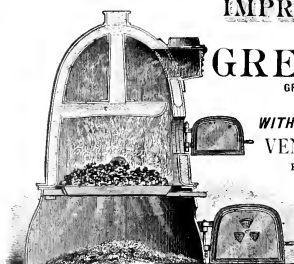
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THE AMERICAN FLORIST



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Vol. II.

CHICAGO AND NEW YORK, AUGUST 1, 1887.

No. 48.

THE AMERICAN FLORIST

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THE AMERICAN FLORIST COMPANY.

GENERAL OFFICES, 54 La Salle Street, Chicago

EASTERN OFFICE,

Room 81, Vanderbilt Building, New York.

All communications should be addressed to the general office at Chicago.

SOCIETY OF AMERICAN FLORISTS.—Robert Craig, Philadelphia, Pres.; J. C. Vaughan, V. Pres.; M. A. Hunt, Treas.; Edwin Lonsdale, Chestnut Hill, Philadelphia, Sec'y. The third annual meeting at Chicago, August 16, 17 and 18, 1887.

BOSTON.—Arrangements have been made for a rate of one and one-third fares from this point to Chicago and return, in special car, starting on Sunday, Aug. 14, at 3 P. M. If desired, this special car will be dropped off at Niagara Falls for a few hours. If this is done it will reach Chicago 7:45 A. M. Tuesday instead of 9:30 P. M. Monday. All those who propose going to the convention from New England points should communicate at once with Wm. J. Stewart, 67 Bromfield street, or P. Welch, 165 Tremont street, Boston, Mass.

EXHIBITION SPACE AT CONVENTION.—After this date applications for space should be made directly to the local committee at Chicago. Ample space has been provided. A man will be in attendance to receive all articles, and plants will be watered and cared for until arrival of owners. Applications for space should be addressed to T. F. Keenan, 170 Lake street, or S. F. Leonard, 159 West Randolph street. Articles for exhibition should be addressed to either of the above-named gentlemen, substituting "First Regiment Armory for the mail address given above.

Chicago Hotels.

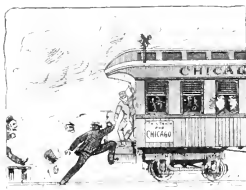
We give below a list of desirable hotels most convenient to place of meeting and to headquarters of the convention:

Commercial Hotel, corner Lake and Dearborn streets, \$2 a day. Lifton House, corner Wabash avenue and Monroe street, \$2.50 a day. Grand Pacific Hotel, corner Clark and Jackson streets (society headquarters), \$2.50 to \$3 a day. Leland Hotel, \$3 to \$5 a day. Briggs House, corner Randolph and Fifth avenue, \$2 a day. Sherman House, corner Clark and Randolph, \$3 to \$5 a day. Tremont House, corner Lake and Dearborn, \$3.50 a day. Palmer House, corner State and Monroe, American plan \$3 a day and upward, European plan \$4 a day and upward. McCoy's European Hotel, cor. Van Buren and Clark streets, rooms 75c. to \$1 a day.

New York and Philadelphia.

Programme for Chicago Trip

At a special meeting of the New York Florists' club held July 20 it was unanimously resolved to accept the offer of the Baltimore & Ohio railroad of a special train to carry the members and their friends to the approaching convention at Chicago. Mr. May, of Summit, N. J., was requested to act as chairman of the transportation committee and to make the necessary contract with the said railroad company, the rate from New York to be \$17, and for return \$5.67; sleeping car berth \$5 additional each way.



MADE UP BY THE NEW YORK FLORIST

At a special meeting of the Philadelphia Florists' club, called to consider the matter of transportation to Chicago, and held in Horticultural hall July 22, the resolution of the New York club was fully considered, and it was unanimously resolved that the Philadelphia club join their New York and eastern fellow-laborers, and thus make the representation from this side of the Ohio river a family affair, all going together on the above-mentioned special train, the rate from Philadelphia to Chicago to be \$16.75, and returning \$6; sleeping car \$5 additional each way.

The following schedule of the proposed train was read to the Philadelphia meeting by Mr. C. R. Mackenzie, district passenger agent B. & O. R. R., Philadelphia: "Special train composed of one baggage car, one smoking car and seven palace sleeping cars, to leave New York Saturday, Aug. 13, 1887, and run through to Chicago without any change whatsoever.

Leave 5:30 P. M. from Central railroad of New Jersey depot, foot of Liberty St., New York
6:00 P. M. Elizabeth
6:40 P. M. Trenton
Arrive 8:01 P. M. Philadelphia, Twenty-fourth and Chestnut St. depot.

On arrival at Philadelphia the New York and eastern members will be tendered a supper in the depot by the Florists' club of Philadelphia.

Leave 8:00 P. M. Philadelphia
8:00 P. M. Wilmington
12:00 P. M. Baltimore
1:00 P. M. Washington.

Breakfast and dinner will be served on the train, and running along leisurely so as to thoroughly enjoy the magnificent scenery for which this railroad is so widely known, and which embraces the valleys of the Potomac and the Shenandoah, the picturesque heights of the Blue Ridge and the eastern Alleghenies, Deer Park—the lovely summer resort now known almost as a household word, thanks to President Cleveland and his bride—will be reached in time for supper, and enable the participants in the trip to view the delightful surroundings by daylight. At Deer Park those of the members who have followed the party on the trains leaving Washington at 10:55 A. M. and 3:15 P. M. Sunday will join the special, and the schedule will be resumed as follows: Leave Deer Park at 6:15 P. M.; arrive at Benwood at 3 A. M.

At this point the train will be augmented by the delegation from Pittsburgh, who will leave that city in their own sleeper at 8:30 P. M. Sunday evening, Aug. 14, and the Wheeling florists will also join the party at Benwood.

Zanesville will be reached at 5:20 A. M., and at 6:30 the train will arrive at Newark, where it is anticipated the Columbus delegates will meet the party. At this point breakfast will be taken, and leaving here at 7:30 A. M., Mansfield will be reached 9:20 A. M., and Shelby Junction at 9:45 A. M., where the Cleveland contingent will be looked for.

The next stop will be Chicago Junction at 10:15 A. M. Here the Sandusky members will meet the train. At Defiance, which will be reached at 12:30 noon, the dining cars will be attached to the train, and the next stop will be Auburn Junction at 2:30 P. M., where it is hoped the delegates from Detroit will add to the ever increasing party, and without any further stop the train will run through to Chicago, arriving there at 7 o'clock.

Mr. C. R. Mackenzie, of the Baltimore & Ohio railroad, will accompany the train from New York to Chicago, and he will remain with the party at the Grand Pacific hotel, Chicago, during the entire convention and arrange for the running of the special train returning. It is the desire of the railroad company to give the members the opportunity of seeing the entire road by daylight; consequently the special train returning will run through the portions of the country by daylight which were traversed during the night time on the outward journey. This will afford an opportunity of seeing the Ohio river, Cheat mountain grade, the Buckhorn Wall, Harper's Ferry, Washington and Baltimore, by daylight. Certificates entitling delegates to above reduced rates can be obtained from Edwin Lonsdale, secretary, Chestnut Hill, Phila.

The Education of Gardeners.

Be gentle with us. True, most of us are only gardener-artisans. The great majority of us are foreign-born and trained, and it takes a good many years' life in America to eliminate our old country notions. Education in foreign lands is not so easily obtained as it is here in America. We boys as soon as we entered our teens went forth from our parents' roof self-dependent, self-supporting; we did not go out in summer to return in winter, but we went out to stay out. Early and late we had to work, and all day long toil ardently, but we were thankful to have the work to do. Our souls yearned for a little recreation, and the few evening hours in a week that we could call our own we spent in fun—I did, anyway. Few of us were inclined to interest us in them. But we were country boys, healthy and happy. After a few years spent as hired boys on farms, and we were big and strong enough to be accepted as apprentices at trades, we tried for such positions. Some sought gardening because they had a liking for it, others because it was a nicer job than farm service. But in country places we had very limited opportunities of knowledge or observation, and were utterly ignorant of scores of industries, and thus it is that many of us would have made better weavers than gardeners, or more skilled machinists, harness-makers or tailors than florists.

Our apprenticeship finished, we passed several years as journeymen, moving almost annually from one garden to another, for experience' sake. Then we put on a little style. But instead of thirsting after gardening in all its branches, studying the how and why of "canability," Brown, the tasteful scotch of Maroon, the beauty of Andre, or the methods of Meston, we sought the greenhouse and felt most at home among orchids and other tropical plants.

Inspired by the fame of America, induced by friends, or with a view to better our condition, we have come hither, and here we are, a motley crowd, good, bad and indifferent, lazy and smart, bright and dull. We cannot keep trace of the humbusts, the "little fellows," or those who have left horticulture for other avocations, but we point with pride to those who have prospered and made for themselves an enviable name and fame in horticulture in this broad land of liberty. Behold Buchanan, Menand and Veitch as florists, Saul as a nurseryman, Henderson as a seedsman, and Meehan as a scientist. A host of younger men are fast advancing in their footsteps. In landscape art there's Miller and Saunders; and although now gone, let us recall our late lamented friend, Stranach, who did so much for our neglected cemeteries.

On landing here we take what work is offered us, and get acquainted with the country, climate and way of doing things. The young and gifted save their money and start in business on their own account as soon as they can. The older ones among us hesitate, have no commercial capacity, are afraid to venture, or are so imbued with foreign ways that we cannot espouse the driving methods of our adopted land, and continue on as hired men.

"E. A. W." says, "I ask how we can remedy our mental deficiency. Let me suggest. By reading the AMERICAN FLORIST. Tell us all you know. Teach us, we wish to learn." Chemistry, entomology, geology and kindred sciences

are excellent in their way, but the FLORIST is too small to include them except in cases where they have a direct bearing on practical questions in our business.

If we gardeners don't "speak in meeting," it is more owing to our diffidence than ignorance of our business. All of us have not been tree-peddlers. If we don't contribute our experience to the papers, it is not because of indifference or a desire to conceal what we know, but rather from not being accustomed to write for the press, we lack confidence in our ability to properly express our ideas on paper—call it lack of education, if you may.

Schools of horticulture abound on the continent of Europe, and graduates of them are not uncommon among us. And even in America have we not an instructor in horticulture at Harvard university, and a professor of horticulture and landscape gardening at Lansing, in Michigan? Instruction in horticulture is given in most of our agricultural colleges. But aside from John Taylor (Harvard,) I cannot now recall any prominent florist who has graduated from any of these horticultural schools.

We gardeners may think we are eminently fitted as landscape architects, but most of us fail deplorably. Downing was a genius in that direction. The landscape artistic taste and capacity to execute it of Olmsted, Dowditch and Parsons as well as supercedes that of the everyday gardener as sunlight does starlight. Landscape gardening requires a higher class education and more refined natural taste in its direction than does any other branch of horticulture, and very few of the rank and file of gardeners, home or foreign, know anything at all about it. A HIRSD GARDENER.

Seasonable Pointers.

There is always a dearth of flowers, especially white ones, during the latter part of September, and also during October, until chrysanthemums begin to open their blossoms. There is no real necessity for this scarcity, for by a little careful preparation any florist may have white flowers in abundance through the time mentioned.

For this purpose seeds of candytuft and mignonette may be sown now in a cold frame, as the seeds when they germinate will be much more under control than if outside in the ground. Let the seeds have a light shading over them for a few days, when growth will soon begin, the shading, of course, to be removed as soon as the seedlings make their appearance.

Hollyhocks may also be gathered until the latter part of October. This statement may surprise some, owing to the fact that with many these flowers are usually over by August. All that is needed is to have plants raised from seed sown late in the fall, and planted out in the open ground in May. The older plants which are wintered over from year to year will be found useful to produce an early crop of flowers. We have many plants of double white hollyhocks yet to flower, not a bud having at this time (July 16) opened.

Enough carnations may also be grown to allow of some plants flowering early. These need not be housed with the others, but on approach of frost they can be potted and wintered in a cold frame, well protected during very cold weather. Treated in this way they will prove useful for spring sales. "Pres. Degraw" is

an old kind, but superior to all others for producing a crop of fall flowers. Plants intended for this purpose should not be stopped after the middle of July.

Amongst the many plants that can be used for this fall work not one is superior to the aster. Possibly there may be some florists who are still ignorant of the grand flowers that can be gathered from the newer and vastly improved strains that have been raised within the past few years. The Victoria aster, especially the variety "Snow-white," should be cultivated by every one needing white flowers during the autumn months. Those thus dependent on a continuous supply can easily arrange to have two or three crops of this beautiful and serviceable flower. All that is necessary is to make two or three sowings, using good judgment as to the intervals of time that should elapse between each one. Asters must be planted in rich ground, to attain the best results.

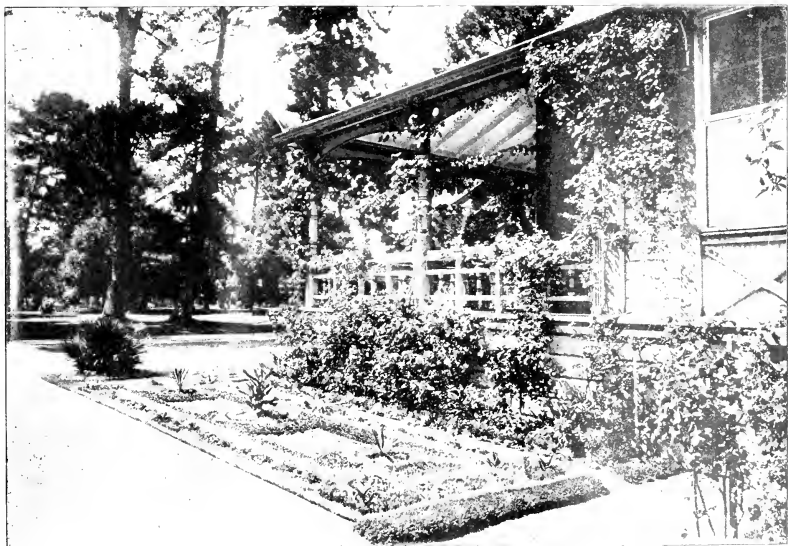
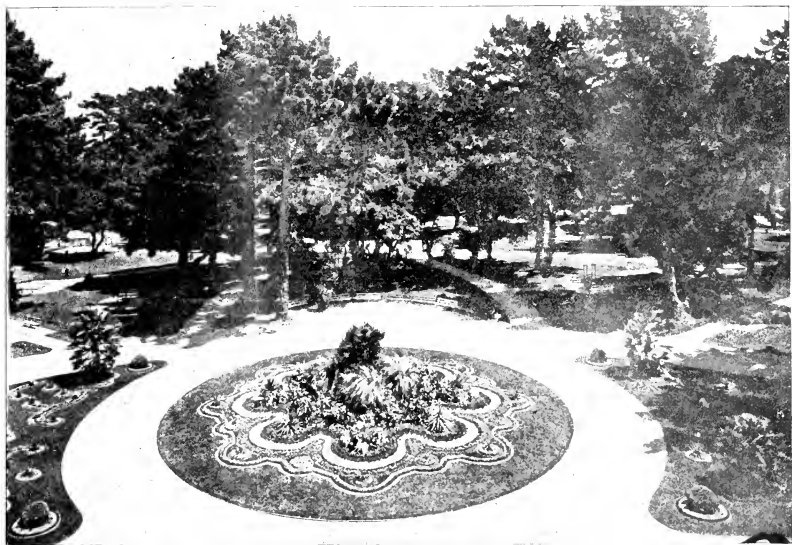
Pansies may now be sown for fall and winter blooming. Sow the seeds in flats or in a cold frame; shade from the sun until the seedlings are above ground; afterwards uncover and let them be exposed. If large flowers are a desideratum, it is essential that only seed selected from large and finely-colored flowers should be used. If pansy seedlings are at any time subjected to a moist atmosphere and high temperature, they will quickly die.

Poinsettias will make better plants if the shoots receive one stopping before attaining a long growth. Carnations and chrysanthemums should also be watched and pinched when needed. There is much difference of opinion as to when carnations should receive their last stopping. This, however, must be determined by each grower's own experience. Different varieties require different treatment. Some grow faster and set their flower buds faster than others. In such points as these it is not easy to be exact as to dates. Some men wish for flowers early in the season; others think they are quite as well off in waiting later. We must all be governed by our own observation and the requirements of our business.

Heliotropes grown to standards make by far the best plants for winter blooming if room can be spared to accommodate them. Cuttings rooted in May will usually make good heads by October if treated generously through the intervening months. They can be shifted on as required until they are in 9-inch pots, which size will be found sufficiently large for the plants through the winter. Until the approach of frost the pots can be plunged outside and the plants treated to a light dose of manure water occasionally.

Let all runners be kept cut from violets and the plants receive frequent hoeings. Experience teaches that these and other plants in the open ground, which are needed for winter work, are not benefited by waterings with the hose or watering cans during drought. If we could practice a system of irrigation and thoroughly soak the ground, some advantage would be gained; but watering, as generally practiced, causes the soil around these small plants to crack, thus admitting hot air to the young and tender roots. If ground could be hoed directly after rain the loosened soil never bakes, acting as a most effective mulch for the prevention of evaporation. A. E. W.

ERIE, PA. Titus Brest will build two 60-foot houses this season.



VIEWS IN THE GROUNDS OF THE HOTEL DEL MONTE, MONTICELLO, N. Y.



Epidendrum Vuelinum.

This is a grand species, and one of the very few of this extensive genus that will repay the trouble of growing. Its flowering at an unfavorable season is the one drawback to its utility to a florist for cut flower purposes, but I think this can be remedied as there are two varieties, one the type which flowers in the fall, and the variety majus flowering early in June. With a little care and attention in bringing one in early and retarding the other, it can be made to produce its flowers at a more favorable season. It will certainly repay any extra trouble in this respect. The flowers which measure about an inch across are of a brilliant vermillion orange with a narrow pointed lip and column of bright yellow and the anther cap of orange red. In general appearance this species differs from others of the genus, in its dwarf, clustered habit and its glaucous leaves. The pseudo-bulbs are ovate lanceolate, bearing two oblong ligulate acute leaves, six to eight inches long—the peculiar glaucous hue of these form a pleasing contrast to the brilliancy of the flowers. The spikes which are sometimes branched usually bear about twenty flowers—though I have seen thirty-six flowers on very strong spikes. These remain in perfection a very long time—more than two months—without any injury to the plants.

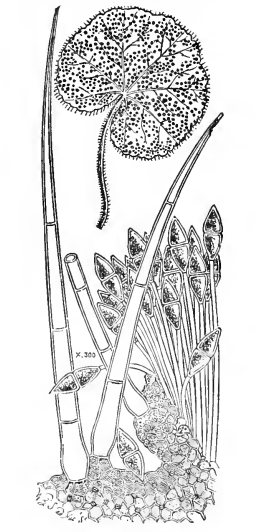
It is nearly half a century since this species was discovered in Mexico, where it has a wide distribution extending into Guatemala. It is found growing on rocks and stumps of trees, at high altitudes and under similar conditions respecting heat and moisture as *Odontoglossum crispum*, and with this species it does well in cultivation, requiring pretty much the same treatment, except that during the winter months it is better to keep this species somewhat drier than is usual for cool orchids, more especially is this advisable in respect to the varieties majus, which matures its bulbs in the fall—and the flower spikes remain in embryo until the following spring. Shallow pans are generally adopted for growing this species, but we prefer horizontal rafts of wood which we find suits them admirably, and by using very little moss we can manage them more easily during the resting season. We have about forty spikes in flower now, and these arranged as they are among the large *Odontoglossum Pescatorei* form a contrast of color that is perfectly charming, and tends to show the great value of this species for decorative and cut flower purposes.

E. GOLDBRING.

Orchids to be Seen at Siebrecht & Wadley's, Rosehill, New Rochelle, N. Y.

Among the many objects of interest to be seen at these nurseries at the present time is a fine new cattleya, which has just been christened by one of the ablest orchid growers in this country. Cattleya Gigas Rocheiliana alla. This great novelty surpasses all the white cattleys in

cultivation. The grand Cattleya Mossiae Reueckiana, Trianae virginialis or Eldorado virginialis cannot touch it either in size, form or substance. The flowers are very large, measuring 7½ inches in diameter. The sepals and petals are snow-white, and they have the true form of the Gigas type. The lip measures 2½ inches and is slightly shaded with mauve; it has the same yellow blotches or eyes that belong to the type; the throat is of a bright yellow extending back to the calyx, which makes a grand combination with the colors already mentioned. It is the



HOLLYHOCK FUNGUS (*Puccinia Malvacearum*) LEA.
WITH PARENTHES TO THIRD. NATURAL. 1/4 AND 1/2.
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GROUP OF ORCHIDS SHOWN AT EXHIBITION OF THE MASS. HORT. SOCIETY, BOSTON.

The remedy that should be applied at present is extermination, lest the disease spread widely here as it has in other countries. If it spreads too widely for extermination, other remedies may be sought. A writer, in the *Gardener's Chronicle* for Aug. 22, 1874, says he has succeeded with "Condy's patent fluid." He says: "I obtained a bottle of the green quality and applied it in the proportion of a large tablespoonful to one quart of water, and upon examining the plants dressed, twelve hours afterwards, was delighted to find it had effectually destroyed the disease (which was easily discernible, as when it is living and thriving it is of a light gray color, but when killed it becomes of a rusty black.)" Twice the strength of this mixture caused instant death to the fungus without injury to the plant, applied with a sponge.

Readers of the *FLORIST* may know of equally good mixtures which can be used in a similar way. A. B. SEYMOUR.

Comments.

If Miss Taplin, in the midst of her doubt expressed in the *FLORIST* for July 1, had but consulted the time-honored pages of her "Gray's School Botany," she would have found the vernacular name, "Elephant's Ear," applied in very large capitals to that now most highly aristocratic plant, the begonia. It is doubtful, however, whether even in its native land—the land of baked water-melon seeds and bird's-nest soup—a market could be found where the fruit of the begonia was exposed for sale. In our

schoolboy days in northern Illinois, by "Elephant's Ear" we understood that plant despised in its native home, but highly appreciated on European lawns, the "*Silphium laciniatum*," also known as "Rosin weed" or "Compass plant."

Is it not possible, however, that Miss Taplin has read of the fruit of the "Elephant apple" or Bengal quince—the "*Schleim appelboom*" of the Dutch East Indies, known to botany as *Egle marmelos*, and at present still rare in the "new world"? Or she may have read of the equally rare "Vellanga," the fruit of *Feronia elephantum*.

Our critic, too, will not need to go to the East Indies to find a perennial plant of *Ipomoea bona nox*. She may see the plant flourishing from year to year in all its glory from one end of Florida to the other, and through the West Indies from Cuba to Trinidad. It is always perennial where the ground does not freeze much, its moon-faced visage staring out of the swamp from one year's end to another when frost keeps its distance. It is inferior in beauty, of course, to the most of native Florida and West Indian *ipomoeas*, but that is nothing strange, as many of the ugliest plants in existence have been foisted onto the public and "pushed" to the utter exclusion of many of nature's choicest gems. One of the most beautiful *ipomoeas* in existence is another Florida species, *I. sinuata*, or *quercifolia*, a perennial species with most delicate deeply-cut leaves and pink-throated white flowers, but who ever heard of one firm selling 50,000 plants of this species in one season? P. W. REASONER.

The New Hollyhocks.

The hollyhock is being greatly improved and is becoming one of the first lawn flowers of the day. The improved sorts seem to be more of a biennial order than perennial. It is one of my special favorites, and why should it not be? Here is a stately stalk six feet high, full of flowers, pure crimson scarlet, without the usual rough brownish lines; very large, five inches in diameter this dry season, perfect in shape and full double. It has been named "Crimson Jackmanii." I give it good strong soil and good cultivation, and get lots of flowers.

Seed may be planted any time. I prefer to plant the new seed as soon as ripe where intended to flower, under a covering of brush and hay, and I also protect during winter with same. I now have plants in full bloom (July 1st) from seed so planted last August. They generally come true from seed, but not always, one in ten may come inferior, which should be pulled at once, and one in fifty be an improvement, from which the seed should be saved from a few of the first flowers and planted at once, also cut down the stalk as soon as ripe, and at same time take up and divide the root into as many parts as eyes are showing growth, and plant each part separately, shading them until established. Such divided plants will give superior flowers next year. To leave the plant undivided over winter, the chances are it would be dead in the spring.

I have some plants from seed planted last October, taken up, potted and kept

in pots over winter in the cellar and planted out early this spring, which are now showing buds and will be blooming through August, a full month later than the early-planted. Such last year gave most profuse bloom, while the early-planted gave the larger flowers. The divided plants also come into bloom early, and should be divided and reset at once or potted early each fall.

JOHN LANE.

4801 Lake Ave., Chicago.

Propagating Double Primroses.

As double primroses are not so easily propagated from slips as many other plants, I may be allowed to communicate a way of propagating by dividing them, a method I have practiced for several years with success, and which I can recommend.

The best time to propagate them is in the months of June and July. Take your old plants, cut or tear off all the bad and faded leaves; then place moss (sphagnum) around the plants up to the leaves, and set them in a moderately warm bed under frames. A little air must be given, and if the sun is ardent a good deal of shade. The moss is kept constantly and uniformly moist, so as to favor the formation of roots. In watering, care should be taken not to pour the water in the middle of the plant, but by its side. In about three or four weeks the plants will have plenty of roots, and can be divided. The division must, however, be made with precaution; use a sharp knife, so that the moss may remain as much as possible attached to the young plants. These are then planted in pots (2½ or 3-inch) in a mixture of compost, two parts of bedding earth, two parts of leaf mold, one part of ordinary mold, and a half-part of sand; then they are again placed in the bed.

For the first week they must be given no air, but much shade, and in the morning and evening slightly sprinkled with water, and after this be gradually habituated to the air, and moderately watered as soon as they begin to get dry. Three or four weeks later they are reported in larger pots and replaced on the bed, where they may remain for a few weeks. They are then put into a greenhouse (temperature about 45° to 50°), as near the glass as possible, and during winter moderately watered and given from time to time a little liquid manure. The plants must be kept clean from decayed leaves.

By following this process we can obtain every year from the old stock young and healthy flower-bearing plants. This propagation is easily effected and sure of success.

HERMAN DIESEL.

Rochester, N. Y.

New White Carnation, Wm. Swayne.

This carnation is a cross between Henderson and Snowden, the latter being the seed-bearing parent. It is not as tall as a grower as Henderson. It originated in 1895 with Wm. Swayne, and bloomed on our trial grounds July 1 this year. It is very double and the petals are of great consistency. The flowers are two and a half inches in diameter—not unusually large, unless we consider the tropical heat during the last of June in which the flowers matured. We are growing over one hundred varieties, including all the foreign and domestic whites of any value, and the flowers of this new variety are better than any other kind blooming

under the same conditions. The bracts supporting the calyx are numerous and very heavy, rendering bursting very improbable. We saw florets of this plant in the winter of 1886-'87, and they were large, full, pure white, on long stems, and remarkably fine in every way. The plant is a stocky and very vigorous grower. It is claimed this kind is an early and continuous bloomer, and free as Snowden when at its best.

The tests of merit wanted by commercial growers of carnation flowers must be taken largely under glass. Such trial tests will be continued by us this coming fall and winter on this plant and several recently introduced kinds, and the readers of the FLORIST will know the result. We have no interest in the stock of this plant and have none to sell. It has been with other kinds from different sources consigned to us for a series of systematic experiments now being made at our trial station.



It may be premature to speak before these trials are fully completed, but we believe that two of the new white carnations will supplant all others of this color for commercial bloom.

Alliance, O. L. L. LAMBORN.

Daily Record of Work Done at the Lincoln Park Greenhouses, Chicago, 1886.

August 1. Tem. morning 76°, noon 81°, evening 72°. Wind, S.E. to N. Sunday.
2. Tem. 70, 73, 67. E. to N. Trimmed and cleaned beds. Turned potting soil. Potted *Cineraria hybrida*.

3. Tem. 63, 80, 72. SW. to E. Same as yesterday.

4. Tem. 65, 77, 72. S. to W. Tied gladioli. Turned compost and cleaned beds.

5. Tem. 68, 72, 72. SE. Potted primulas from boxes. Repotted ferns and trimmed beds.

6. Tem. 70, 74, 71. E to NE. Same as yesterday.

7. Tem. 67, 81, 75. S. to E. Tied gladioli and trimmed beds.

8. Tem. 61, 86, 84. E. to S. Sunday.

9. Tem. 73, 95, 86. S. Repotted cyclamens. Cleaned and trimmed beds.

10. Tem. 76, 80, 80. SW. to W. to SW. Tied up ricinus and other plants. Repotted cyclamens. Commenced propagating *Alternanthera paronychioides*.

11. Tem. 75, 81, 75. W. to N. to SW. Continued propagating *Alternanthera paronychioides*. Planted *A. aurea* in

place of variegated alyssum in central carpet bed. Planted celosias and other plants in mixed beds. Tied up canna and ricinus.

12. Tem. 74, 82, 80. E. to SW. Continued propagating *alternanthera paronychioides*. Picked off dead flowers from geranium beds.

13. Tem. 73, 81, 82. S. to SW. Continued propagating *alternanthera paronychioides*. Propagated *Hydrangea paniculata*. Trimmed beds and picked off dead geranium flowers.

14. Tem. 68, 72, 70. E. to NE. Cleaned vases and flower stands and same as yesterday.

Spiraea Confusa.

Under the name Messrs. James Veitch & Sons have had a number of elegant shrubby plants in their flower house this season, and it seems so well adapted for forcing that it merits the attention of those who wish to provide as diversified a display as possible early in the year. The branches are very slender, bearing small oval slightly cut leaves and most abundant compact trusses of pure white flowers, which last a considerable time. *Spiraea confusa* is as easily grown as any other form of the genus. A good loamy soil suits it, and after forcing the plants should be encouraged to make a free growth, which must be well matured out of doors in a sunny position, as they will thus gradually acquire an earlier habit of flowering. If planted out they should be lifted early in the year, potted, and introduced to moderate heat, as if placed in a strong heat they are not so satisfactory.—*Journal of Horticulture*.

The New Poppies.

Vesuvius: large glowing scarlet, the petals have a white base and finely fringed scarlet edge. The full double is as a perfect ball of fire; the semi-double are grand in showing more white through the scarlet; the single are elegant beyond description, having the white passion flower like center with four large petals of pure white tipped with the most vivid scarlet and finely fringed edge—the most beautiful of all poppies—delicate, a strong grower and profuse bloomer.

Snow Drift: large pure white, perfectly round and double flowers and most finely fringed, dwarfish growth, producing flowers in great abundance, all perfect, delicate yet lasting well; a good florist's flower.

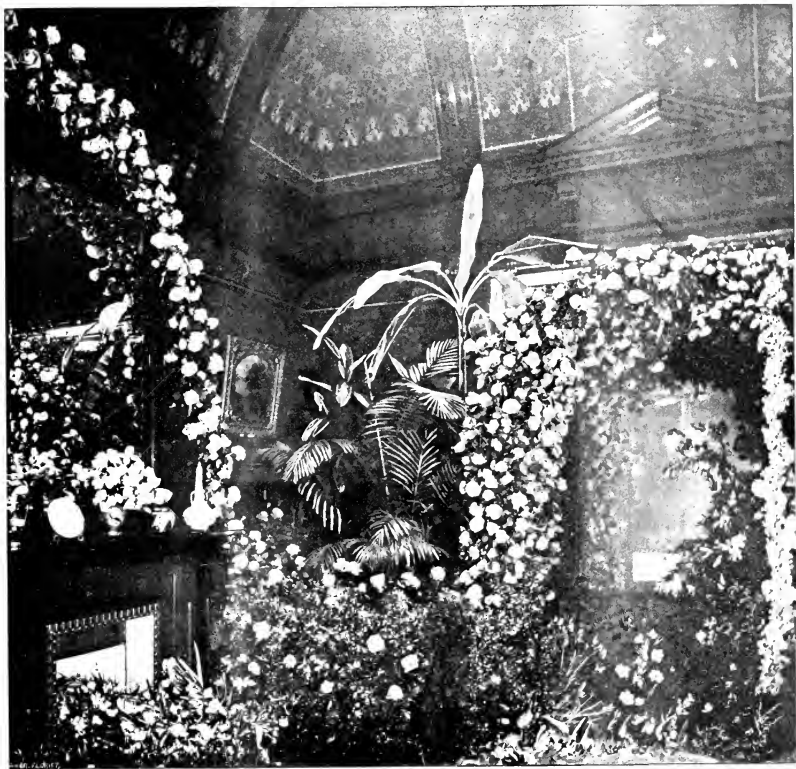
Crimson King: large full double flowers of a rich crimson somewhat fringed, lasts a long time, a strong grower and full bloomer, a valuable florist's flower.

A Pink, (not new), quite like the C. King, except as to the color, is worthy more general cultivation, a good cut flower.

JOHN LANE.

4801 Lake Ave., Chicago.

MEALS REC. Mr. E. Edelfors states he eradicated this pest by the following: He procured a barrel of blood from a slaughter house, which he allowed to stand until it had a very perceptible odor. Into a barrel of water he poured three pails of the blood, stirred it thoroughly, then sprinkled the plants with it until the soil was saturated. He states that his roses and bouvardias were much improved, and that he has not been troubled with the mealy bug since. As the blood is an excellent fertilizer, it would not be an unprofitable experiment to try on plants which need feeding.



WEDDING BOWER

Wedding Bower.

The illustration is of a wedding bower and decoration arranged by the B. A. Elliott Co., Pittsburgh, for the Logan-Andrews wedding at Youngstown, O.

The bower of roses on the right, in which the ceremony was performed, is but imperfectly shown in the cut. The front of the bower was filled with Puritan roses, the sides and top with Gloire de Paris, Magna Charta, Paul Neyron and Baroness Rothschild. The entire inner surface was made of Perles and Jacqueminot roses, with a border of Narcissus poeticus edged with adiantums on the floor. A large mirror at the back made the inside arrangement of the bower very effective.

To the right of the bower stood an old English bellry neatly covered with Chinese arbor vitæ and decorated with

sprays of odontoglossum. The bell was made of *Bon Silene* buds, and the rope of lily of the valley. The space between the bower and the sides of the room was made into a rose garden with a background of palms and musas, a large quantity of hybrids and hybrid teas in pots being used for this purpose.

The minor decoration on the left was simple and effective. It consisted of a long loose spray of La France roses carried from the rose garden to the top of the mirror. The fireplace and hearth were filled with scarlet and yellow tulips, *Narcissus trumpet major*, *N. ornatus* and *N. Horsfieldii*.

HEAVY RAINS at and near New York and Philadelphia the past week gave the earth almost too much of that for want of which it has lately suffered.

Fuchsias for Cut Flowers

While there would be no profit in growing fuchsias for cut bloom to sell at wholesale, they are excellent to cut from for local trade. The single blossoms can rarely be used to advantage, but a fine spray of drooping buds and bloom will give an additional charm to most cut flower work and are much liked in loose cut flowers, while very large sprays are fine in decorations. The variety best suited for this use is the old *speciosa*, which should be planted out in beds, where they must remain permanently to secure best results. A bed of old plants in the greenhouses of Frank Whinnall & Co., Milwaukee, have attained a height of four feet furnishing large quantities of flowers for cutting, and no conservator quite profitable by the owners.



Stocks for Grafting.

In the FLORIST of June 15 Mr. T. Schultze asks, "Which are the varieties of roses which refuse to thrive, grafted on the seedling brier?"

I have not meant to say that some do not thrive on that stock, because my opinion is that roses, as well as all other shrubs and even trees, do thrive better on their own roots, although there are exceptions to that rule as to all others.

The hybrid perpetuals which last year did not bloom well in autumn in my garden, are Louis Van Houtte, Souvenir de la Reine d'Angleterre, Capitaine Christy and Jules Margottin; but that may also be an exception, as now they are all in full bloom. Nevertheless, I must state in favor of my argument that I have four plants of La France, of which one is on its own roots and is a splendid bush now covered with a large quantity of splendid flowers, while the three others, although of same age, are slender in comparison. If I have recommended other stocks, it is because they are more constant bloomers, and must consequently communicate that quality to the graft.

I conclude by recommending again to amateurs, roses on their own roots. After all, grafting is a mercantile business, to produce quickly and largely, and not a mode of improvement.

JEAN SISLEY.

Monplaisir, Lyon, France.

ROSE CLOVEPATRA.—This is one of Henry Bennett's seedling teas, a delicate salmon pink in color, of fine form and very fragrant. It was certificated by the Royal Hort. society June 28.

ROSE LADY ALICE.—A sport from Lady Mary Fitzwilliam of similar size and form, but differing in color, being all most white with a pinkish center. From Paul & Son, Cheshunt, England. Certificated by the Royal Hort. society.

Holland Bulbs.

The following circular letter has been received at this office:

The Royal General Union for the cultivation of flower roots at Haarlem has held an extraordinary general meeting on the 26th inst., which was attended by a large number of its members, among whom the principal growers of bulbs and the principal members of the bulb trade. At this meeting has been taken into consideration that the unusual cold weather of this spring has caused all growing crops to be very back, and this unusual circumstance has been considered and has led to the resolution that in consequence of this extraordinary season the flower roots and more particularly the Amaryllids, which probably shall not come to full maturity at the usual time and that therefore their exportations may be effected at a somewhat later period than the usual time.

For the Royal General Union for the cultivation of flower roots.
D. BAKKER,
Haarlem, 6 June 1897. General Secretary.

DUTY ON HOLLAND BULBS.—I am eager to have the Society of American Florists take up the question of import duty on bulbs, as suggested in last issue. The goal pointed out is one we should reach as soon as possible. Let us make an effort to reach it next month.

C. B. WHITNAIL.

Leptospermum Bullatum.

Amongst neglected hardwooded plants must be ranked the charming Leptospermum bullatum, a free-growing floriferous plant that ought to be in every greenhouse. Mr. D. S. Williams, Upper Holloway, has some beautiful little specimens this season in his nursery, plants in 8-size pots being small pyramids of pure white flowers, and the smallest plants seem to flower equally freely. So profusely are the blooms produced that in some instances the narrow dark green leaves can scarcely be seen, and the branches are covered their whole length with snowy flowers. In a compost of



LEPTOSPERMUM BULLATUM.

peat, sand and light turfy soil this leptospermum grows quickly and flowers frequently, the only special care it needs being in the affording good drainage and supplying water carefully. —*Journal of Horticulture.*

Philadelphia.

W. K. Harris is rebuilding and enlarging one of his old houses.

Judging from the amount of glass the growers around Philadelphia are erecting, business must have been better than usual with them the past winter and spring.

Wm. J. Collesh, a neighbor to Mr. Anderson, is again building, though not largely. So far Mr. Collesh has the best chrysanthemums I have yet seen at this time of the year. He also has about 100 seedlings which promise well.

The cut flower trade was good up to July 1, but since then it has been very dull. Sweet peas, water lilies and a few roses are the principal flowers offered, and since the very hot weather commenced, roses have been of very poor quality.

Edwin Lonsdale is erecting at Chestnut Hill two houses, probably the finest in the vicinity of Philadelphia. They are 25x26 each; he is also building a hybridhouse. Mr. Lonsdale is using French

double-thick glass 16 x 24, and will heat with steam. We all wish him success.

Robert Craig is building a fine rose house 214 x 22, and he says he will make it the best house he has ever built. The center table will be planted with the Papa Gontier. The house will be provided with the "Challenge" ventilator; he used this ventilator on a house built last year, and was very much pleased with its work. He will also use steam for heating; last year was his first experience with steam, and he is so well pleased with it that he wants no more hot water. Mr. Craig expects that the coming Chicago convention will be the largest and best meeting the society has had.

George Anderson, of Darby road, has his new 100 x 20 house about ready for glazing. The house is a three-quarter span, the first of the kind he has built, his eleven other houses being all equal span. He has also made a change in using benches in several houses, having always used solid beds heretofore, with exception of one house. This would indicate a belief that better results can be obtained from benches than from solid beds. It is interesting to note that every one of the men who advocated solid beds at the Florist club's debate two months ago are growing their roses on tables, some of them having not even one solid bed on the place with the exception of those in which hybrids are planted.

W. W. C.

New York.

Mr. J. L. Brower has gone with his family to Asbury Park to pass his vacation.

Mr. Wm. I. Brower has charge of Klunder's store during the summer while Mr. Klunder conducts at Newport.

There is a steadily growing inclination on the part of all our florists to improve the dull season by recreating in the country.

We hear that final arrangements are not yet made for the building of the greenhouses under Mr. Thorpe's management, as reported in the last FLORIST. The largest and most important auction sale of orchids since that of the Morgan collection took place at Young & Elliott's July 26. Three hundred species of unique Australian orchids were sold.

Fred. Gordon went to Boston for the purpose of making an elaborate funeral design for the ceremonies over the remains of Vice-President Hill of the New York stock exchange. The piece was a cross five feet high composed of longirans, 16 brasses, Perle and Nipheto roses, Eucharis amœnica, white carnations and a rich festooning of adiantums.

Mr. Samuel Sloan refused his name as one of the "patrons" of the New York Hort. society's spring show. Mr. Sloan has never recovered from the horticultural hall fizzle. There were tears in his eyes when I shook his hand and congratulated him that the society had at last found a "home," the day the hall was dedicated. Also how soon the bubble collapsed and the "subscriptions" returned to those who made them.

FLINT, MICH. The florists here seem to be thriving, as each of them are putting up new buildings. Smith & Evans are building a rose house 128 x 19½, and putting in a 4-horse power boiler. B. Haschelsky a rose and carnation house 100 x 26, and a 4-horse power boiler, and J. L. Wilcox a rose house 102 x 34.



CHAMPAGNE BASKET FILLED WITH FLOWERS

Chicago.

J. T. Anthony is building a fine show-house, 60 x 20. It will contain a stock of tropical decorating plants when finished.

The unprecedented drought experienced here has done great damage to all vegetation. In some of the parks not only the lawn but even trees are seriously injured.

The weather is scorching and the contents of the greenhouses are badly burned. Flowers are scarcer than at the holidays; in fact, there are none worth mentioning to be had.

It is rumored that Mr. J. D. Carmody, of Evansville, Ind., will scatter "Hot water under pressure" literature at the convention so thickly that it will be difficult to wade through it.

The preliminary list of premiums offered at the coming fall flower show and plant exhibition of the Chicago Florist club is printed, and copies may be obtained by any one on application to G. L. Grant, secretary, 54 La Salle street. A complete list giving a number of valuable special prizes offered by various private individuals and newspapers, will be published later.

Preparations for the reception of the visitors to the coming convention are going rapidly forward. A reception committee of twenty-one will look after the comfort of the "horrid men," while a ladies' reception committee of eighteen will endeavor to make the gentler visitors at home. The social features so prominent at former conventions will not be overlooked, and those who enjoy them can rest assured of a pleasant time

Aug. 19, after the business of the convention is completed and the croakers have left for home.

Adam Blumenschein, one of Chicago's pioneer florists, died July 17. He was a member of the Chicago Florist club, and a large number of the members attended the funeral to pay a last tribute to one who was universally respected by all his business associates. A floral tribute from the club was a large shield of ivy leaves, with the monogram of the club in the center encircled by a large crescent wreath of flowers tied with lilac-colored ribbon. Mr. Blumenschein was an old Odd Fellow and was buried with the honors of the order. His reputation for fairness, honor and conscientiousness in all his affairs was one that any man might be proud of. He landed at New York when he first reached the country without a penny, and while struggling for an existence once gave up a position because his employers required him to do what he considered dishonest—mix old seeds with new. It is satisfactory to record that he never wanted for bread, and for some years past has been in the possession of a competence.

Cemetery Superintendents.

A national convention of cemetery superintendents will be held in Cincinnati Wednesday, Oct. 18 next. The meeting will undoubtedly be pleasant and profitable to all superintendents who attend. Much of the cemetery superintendents' work is in the horticultural field, and the FLORIST wishes success to any movement which will benefit horticulture directly or indirectly.

Champagne Basket Filled with Flowers.

Our illustration shows a miniature champagne basket handsomely filled with bloom. The engraving was prepared for a "Book of floral designs" to be published soon by A. Blane, the Philadelphia engraver, and loaned to the FLORIST by that gentleman.

Convention Notes.

DON'T FORGET that the office of the AMERICAN FLORIST is at 54 La Salle street, near the court house. Give us a call while you are in Chicago.

THE CHICAGO FLORIST CLUB.—Visitors to the national convention are cordially invited to visit the club room at 189 Wabash avenue, second floor, two blocks north of the convention hall.

THE CLUB.

REGISTER YOUR NAME.—After you have paid your dues to Secretary Lonsdale, your next duty is to register your name in a book which will be provided by the local club. To those registering, tickets will be issued later for the complimentary entertainment on the 16th.

BRING YOUR BUSINESS CARDS.—Bring along a quantity of your business cards to the convention to exchange with brother members. Get acquainted with each other. That's what the convention is for to a considerable extent. By handing your card to a member you can make his acquaintance more readily, and he then has something to remember you by.

TAKE A HAND.—In the discussions which follow the reading of the various papers, if you know anything which will throw any light on the matter under discussion, don't hesitate to relate your experience. It is not necessary to make a set speech. Say what you have to say as you would in conversation with an acquaintance. You certainly can do that. If you want information, don't be backward about asking for it. You may bring out valuable points which have been overlooked by older heads, and you may profit from them as well as yourself.

THE CONVENTION HALL.—The First Regiment Armory, where the coming meeting will be held, has two floor-spaces 125 by 60 feet each. The meetings will be held in the upper hall, which is provided with a balcony. The hall will comfortably seat 1,500 people. It is situated on a street away from the main line of traffic, though only three blocks east of hotel headquarters, and the acoustic properties of the hall are good. The lower hall will be devoted to exhibits, and a better place to show exhibits to advantage could not be desired.

Miscellaneous Notes.

FUEL.—How much fuel did you burn last winter? Are you arranging for an equal or larger supply for the coming winter? Get it in now, before the coal combination raises the price in the fall, and you will save money with which to buy tools and other necessities. "A dollar saved is a dollar earned" is an old one, but it gets there every time. G.

TOOLS.—How often we hear the remark, "I could save considerable work if I had another section of hose." Or mayhap it is some tool which would save labor. If any tool or utensil can be made to save labor, you cannot afford to be without it. Have tools to work with, and make every move count. It *don't* pay to work at a disadvantage. G.

SLATES FOR BENCHES.—These are far preferable to lumber for the bottoms of benches. When well put up they will last nearly as long as you will, and will not harbor vermin. They cost a little more than lumber, but they will save many dollars in the end which will otherwise have been expended in rebuilding rotten wooden benches. G.

GOLDEN COROPISS.—In the last issue of the *FLORIST* W. F. does not think that *Coroipsis lanceolata* will bloom from the seed the first year, north of New York. I have it now budded from seed planted this spring, and my experience with it is that it will bloom as early as annuals generally.

WILLIAM STONE.

PLUMBAGO CAPENSIS.—The flower-producing qualities of this plant should not be overlooked by florists. It flowers freely while young, and its handsome bunches of lavender-blue blossoms are quite salable as cut flowers. Though it is too fragile to stand shipping, it is well worth growing by those who sell cut flowers from the greenhouse.

BUILDING.—In your building operations are you using plenty of paint? It will pay to prime all the pieces before they go together, as in this way only can you put the preservative where it is most needed, i. e., where one piece rests upon another. Don't slight your work. Build for twenty years instead of four. Don't try to do all the work yourself. If your

time is not worth more to attend to the details in connection with your business than carpenter's wages, your business is small indeed. Use lime whitewash freely inside of the house; it preserves the lumber, and is cheap. G.

HENDERSON'S ZEBRA ZINNIA.—I have had these in bloom since April. The introducer's colored plate represents them exactly. They include all the colors usually found in zinnias. Some of the plants have striped flowers; others have not. As a good many single and semi-double flowering plants come up among them, it is evident that this zebra race can be benefited by continued selection. In habit I cannot say that they differ from any other good strain of compact zinnias. W. F.

PAINT AND LIGHT.—Have you some old houses that have not been painted for several years, and the sash bars of which are grimy with dirt and slime? You certainly know that such roofs do not admit as good a light as one with clean white painted bars, and you also know that every ray of light to be obtained during the winter months is a great desideratum. Knowing this, you must certainly know that it will pay you well to keep your houses bright and clean. If you have any such dirty houses have the bars scraped and painted now, while work is slack. Don't put it off. Do it now! G.

Trade Notes.

YESLANTI, MICH.—Wells & Co. succeeded A. M. Bush, florist.

YOUNGSTOWN, O.—J. D. Hippard is adding another new house, 100 x 20.

EVANSVILLE, IND.—J. D. Carmoly will increase his glass surface about 1,000 feet this summer.

LYNN, MASS.—The Houghton Hort. society will hold its eleventh annual exhibition here Sept. 20 and 21.

ALLEGHENY, PA.—Jacob Beckert has retired from business. He is succeeded by Theodore E. Beckert, formerly of Beckert Bros. Natural gas has been laid to the greenhouses of John Baders, A. R. Reineman & Bro., and T. F. Beckert.

MILWAUKEE.—F. P. Dilger is building three new houses. H. Hassler is making extensive repairs. H. Edelsen has let a contract for rebuilding his greenhouses. It is understood that the new range will consist of six houses 50 x 12 and one house 100 x 10, including some other alterations on old houses.

INDIANAPOLIS.—The drought has been very severe in this part of the state, and much damage has been done to outside stuff. Cut flowers of any kind are very scarce in consequence. The premium list of the chrysanthemum exhibition of the Society of Indiana Florists is out; it is a neatly bound 16-page pamphlet, well illustrated. A committee of the local club with the secretary of the state society is arranging for a low rate from this city to Chicago at convention time. Florists in this locality who wish to take advantage of the rate should communicate with Wm. G. Bertermann, secretary, Indianapolis. All local members and their wives will attend. A meeting of Indiana florists will be held at Chicago during the convention, of which proper notice will be given.

Plant Notes from Gardeners' Chronicle.

CALADIUMS.—In order to keep late-started plants in good condition until late in the season, they must be afforded timely shifts and frequent waterings with liquid manure, and be kept in a light position, with plenty of space to develop, and be lightly shaded. *C. minus rubescens* is a valuable variety for decorative purposes; its dwarf habit and small foliage—crimson edged with green—makes it a charming companion for *C. argyrites*.

CYCLEMENS.—The plants that have been kept in cool pits since flowering last spring, and have not suffered from want of moisture, will now be moving, and the tubers should be shaken out of their pots and shifted into pots one size larger; ample drainage should be provided, and the compost—sawdust mixed with a fair quantity of leaf soil and sand—should be pressed tolerably firm. Young plants that were raised from seed last summer and have been kept growing, should also be in a fit condition to be moved into their flowering pots, which may be five inches in diameter. After potting replace the plants near to the glass upon a bed of ashes, in a rather close, cool frame. Keep them moist at the roots, shaded, and syringe overhead, when the lights are closed for the day, well moistening the ashes and sides of the box at the same time, affording a more free ventilation after the roots have taken well to the fresh soil. Seeds may be sown any time during the present or ensuing month in well-drained pans filled with fine moderately light soil, embedding them lightly. The pans may be placed in a warm frame or pit, and the soil kept moist and shaded. The varieties of *C. giganteum*, which can now be procured in fine form and distinct colors, are more effective than the ordinary type.

CINERARIAS.—Plants of these raised now will grow to a useful size and form a serviceable succession to the earlier raised plants. These older plants must on no account have their potting delayed, for if the plants get stunted by being pot-bound, they are seldom creditable afterwards. Keep them in a moist, cool pit, shaded from sunshine, freely ventilated in the day time to promote sturdy growth. Syringe overhead every fine evening, fumigating lightly and frequently to keep down aphids. A sowing of primulas for spring flowering may have attention now, and the plants from early sowings, if in fit condition, may receive their final shift into 6-inch pots, the soil used being good loam, with a fair amount of leaf soil and sand added. The after treatment should be similar to that advised for cinerarias; care should, however, be taken to prevent the soil becoming pasty by watering or syringing, and the shading should not be heavy, or a sickly growth will be made. A sowing of *Miles' mignonette* for winter flowering may be made also. The mode we adopt is to prepare as many potted pots as is the number of plants required, and to reduce the seedlings to one plant in a pot; these are repotted frequently, soon after the roots are found to reach the sides of the pots, the final shift being into 10-inch pots, and the compost—fibry loam, mixed with crushed mortar, decomposed manure and gritty sand—is thoroughly consolidated by ramming. *—Thomas Coulter.*

RENEW YOUR subscription for the AM. FLORIST, at 51 La Salle St., while here.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order.

SITUATION WANTED.—In florist store as designer or assistant. Five years' experience in Chicago. Address, *O. E. care American Florist, Chicago.*

SITUATION WANTED.—By a competent German florist; married. 15 years' experience. Private place preferred. Address, *E. S. R. care American Florist, Chicago.*

SITUATION WANTED.—By a florist and gardener. 15 years' experience; good habits; married; no family; private place preferred. Address, *J. H. E. care American Florist, Chicago.*

SITUATION WANTED.—By a practical florist. 12 years' experience in the commercial business; thoroughly understand the shipping business. Good references. Address, *A. E. care American Florist, Chicago.*

SITUATION WANTED.—By a young lady, 20 years, as book-keeper in a florist or nursery establishment. A good pen and type-writer; also a competent stenographer. Address, *J. M. F. 51 Campbell St., Delaware, Ohio.*

SITUATION WANTED.—An assistant or salesman. S understands sale of everything pertaining to the business of seedlings and domestic plants, and is a capable merchant; good knowledge of greenhouse management and arrangement and sales of flowers. Address, *A. B. C. care Mrs. E. W. Whitten, 55 Republic St., Cleveland, O.*

SITUATION WANTED.—As first-class gardener and florist, 35 years old, married, no incumbrances, wife would go as plain cook or laundress, in the east; can give the best of references as to ability. Am. only gentleman wanting first-class position need answer this. Address, *P. J. SAUNDERS, care Chicago Florist Co., 300 Grand Boulevard.*

WANTED.—Books already used, treating specially on floriculture. *PROFFER, Neshoba, Mo.*

WANTED.—Immediately, a good man for general greenhouse work. Apply with particulars. *F. FONTAINE, Racine, Wis.*

WANTED.—A man, reliable, with experience in growing flowers. Reference required. Address, *LARRY L. LAMONT, Albany, N. Y.*

WANTED.—Florists to read our "Big cut" of prices of pots per crate neatly packed. "Big cut in prices by Syracuse Pottery, Syracuse, N. Y."

WANTED.—A single man of sober habits that understands the propagating and growing of the Roses and Camellias for the trade. No one but first-class man wanted. Address, *JOHN N. LINDENBAUM, care J. H. Lam, Co., O.*

WANTED.—A practical Rose grower and propagator, to take charge of small commercial plant sales; wages accepted; single man preferred. Address with references, *WILLIAM DILGER, Sandusky, Ohio.*

WANTED.—A practical florist of strictly moral habits, and \$1000 or more cash capital, to take an interest in an established seedling business; a man without family preferred. Address, *J. B. SETTON, Ocala, Fla.*

WANTED.—On a first-class private place, two young single under gardeners, must have a fair knowledge of the potting and care of fine specimen plants; and must have good references. Address, *B. B. T. WATSON, P. O. Baltimore, Co., Md.*

WANTED.—A good man that understands the growing of cut-flowers in all its branches, to take charge of 30,000 feet of glass and ten acres of ground; must furnish proof of his ability to fill the place. Address, *JOHANN FLORAL CO., 706 Olive St., St. Louis, Mo.*

TO SEEDSMEN.—Wanted: A man thoroughly acquainted with the flower seed business and Catalogue work in a prominent city, to take entire charge of retail store. Liberal salary and time, and a permanent engagement to a suitable party. Address *SEEDSMAN, care Am. Florist, Chicago.*

FOR SALE.—Fine stock of orchids, Palms, Ferns, and Exotics, in quantity, and in great variety, at reduced price to close business. "Exotic Nursery," *A. F. CHATFIELD, Albany, N. Y.*

FOR SALE.—Three greenhouses, cottage house, 1 barn, 2 acres of land, in the suburbs of the village of Ovid, Clinton Co., Mich.; only greenhouse in the place. Address, *M. A. SAWYER, Ovid, Mich.*

FOR SALE.—Most desirable floral business in the W. West, splendid location and capital, and population of city 80,000. Sole reason for selling, failing health. Party will be at Chicago convention. Address, *W. F. RICE, care American Florist, Chicago.*

FOR SALE.—Four large greenhouses and contents, with five year lease of lot 10x125. Three living rooms in connection with greenhouses. Place located in the city of Chicago. A fine stand. Address, *F. C. G. SCHMIDT, 30 Broadway Ave., Chicago.*

FOR SALE.—Nursery and Florist business, fifteen years established. Large mail and catalogue. Yearly sales \$2,000 to \$3,000. Very low price and easy terms to a good man. Address, *C. F. H. care P. O. Bond, room 24 Vance Block, Indianapolis, Ind.*

FOR SALE.—2,500 feet of 3-inch Wrought Iron Pipe with screw joints, all in good order and perfect condition. This is equal to the best cast iron pipe, holding same amount of water. Price, 10c, per foot on board cars. Address, *2144 Wood Ave., Syracuse, N. Y.*

FOR SALE.—Four greenhouses (3000 ft. glass) nine miles from Chicago, three railroads, and near four cemeteries, with 80 feet ground for \$240; terms easy. Or my city store with or without building and 74 year lease, with greenhouse in rear; very low rent. Address, *J. P. KLINE, 518W Madison St., Chicago.*

FOR SALE.—Just building two new greenhouses, and stock of an old established business for a large trade, for sale cheap. Will sell ground also, or give as long lease as wished, and at very easy terms. Located a live, booming city, with one of hundred thousand inhabitants. Address, *B. S. care American Florist, Chicago.*

FOR SALE.—Well established florist business in a growing city in Northern Indiana, with 10,000 inhabitants; only greenhouses between Indianapolis and Michigan City; 2000 square feet of glass; hot and cold water; electric light; telephone; two railroads; population 10,000, and 35,000 more in a radius of ten miles doing their trading here. Business can be rapidly increased. No greenhouse within 25 miles. Owner has a large wholesale business which requires his whole time. Very good growing land. Price, \$2,200. Care American Florist, Chicago.

FOR SALE.—Established florist business, paying 70c per doz. for stock. In a city of 100,000 inhabitants, greenhouses now heated by hot water, corner lot 20x100 feet, city water, electric light, telephone, two railroads, population 10,000, and 35,000 more in a radius of ten miles doing their trading here. Business can be rapidly increased. No greenhouse within 25 miles. Owner has a large wholesale business which requires his whole time. Very good growing land. Price, \$2,200. Care American Florist, Chicago.

FOR SALE OR EXCHANGE.—Some surplus stock of good strong Roses, 8000 crimson Scarlet in 4-in. pots, at 10c per 100; 1,000 in 3-in. pots, at 25c per 100; of Countess de La Barthe, Bon Silene, Madame Ducher, Salsigne, etc. 500 Lantana, 1,000 in 3-in. pots, and 1,000 in 4-in. pots, at 25c per 100; 500 smilax in 3-in. pots, at \$4.00 per 100. Will sell or exchange for anything desired. Address, *C. K. HOFFMEYER, 25 Spring Garden Ave., Allegheny City, Pa.*

FOR SALE OR LEASE.—Greenhouse of 10,000 feet of glass, heated by steam, hydraulic power of 30 pounds pressure. 50 large Marchal Niel roses; 50 Camellia japonica. Centrally located. Sales can be made without marketing. Second square west of State, War and Navy departments. Will sell real estate, or lease on long time. Adjoining lots held at \$125 per square foot. Price of whole 11,000 feet, including greenhouse, 57,000. Reasons for selling, health and disability. Address, *J. L. JACKSON, 185 N. Y. Ave., Washington, D. C.*

ROSES.

We are now prepared to offer the following Roses in the healthy stock for your forcing.

Cocks,	Mornets,	A 2 1/2-inch pots,	per 100
S. du Ham,	Adm.,	3 1/2-inch pots,	5.00
Bon Silene,	Salsigne,	3 1/2-inch pots,	5.00
Mad. de Wittville,	A 3-inch pots,	10.00	
Mad. Jean Seelye,	A 3-inch pots,	5.00	
Mad. C. du Ham,	3-in. and 3 1/2-in.,	\$8.00, \$12.00 and \$15.00	
Cocks, 4-in., strong	A 3 1/2-inch pots,	per hundred, 50.00	

I. C. WOOD & BRO., Fishkill, N. Y.

STOCK FOR SALE.

Perles,	4-inch pots,	per 100
La France,	4-inch pots,	15.00
Beauty,	4-inch pots,	5.00
Son d'Am. Ang.,	4-inch pots,	15.00
Mad. Jean Seelye,	4-inch pots,	5.00
Mad. C. du Ham,	4-inch pots,	5.00

Discount on large orders. These plants are in good condition, clean and free from mildew.

W. C. GERMOND, Sparkill, Rockland Co., N. Y.

ROSES.

We have several thousand extra fine plants grown in the open air, from two-year cuttings at the following low prices.

Perles and Niphotos	per 100
Mornets and La France	82.00
Bon Silene and Salsigne	72.00
Mad. de Wittville	10.00

J. L. DILLON, BLOOMSBURG, PA.

COMPOSSE DE FRIGNEUSE

OR

GOLDEN PERLE.

— Fine Plants, \$25.00 per Hundred. —

BRIDE,

DUKE,

NIPHOTOS,

PERLE,

BENNETT,

LA FRANCE,

And others. All grown from selected wood for bench planting.

Send for Summer Trade List.

GEO. W. MILLER,

(Successor to Miller & Hoyle)

WRIGHT'S GROVE, CHICAGO.

OUR SPECIALTIES.

NOVELTIES IN ROSES

AND OTHER PLANTS.

— ALSO —

FLORISTS' STOCK FOR FORCING.

HILL & CO.,

RICHMOND, IND.

THE GRAND NEW TEA ROSE

"Comtesse de Frigneuse"

This Rose is probably the best ever raised for florist's work, the bud is of "Niphotos" or "Bennett" shape, color of "M. Seill," and rather larger than a duck's egg; a perpetual bloomer.

I am now looking orders for delivery from March to May, of this rose, as well as the grand new Hybrid.

"CLARA COCHET."

All the new Roses of Autumn, 1886, will be ready for delivery in March.

My Catalogue of these, as well as my general Catalogue, free on application.

A splendid lot of "Perle des Jardins," "Niphotos," "M. Seill" in pots, always on hand. Any quantity of ground plants of "Jacqueline," "Mme. Gabriel Luetzel," "Paul Nerou," "Magna Charta" and similar kinds.

JAMES L. BOYSON,

CAEN CALVADOS FRANCE.

Mention American Florist.

THE NEW ROSES,

American Beauty, Bride, Her Majesty, W. F. Bennett, Papa Gontier.

Also good plants of the best leading varieties of Teas, H. Teas, H. P. Teas, and a general collection of greenhouses and bedding plants at a very low price. Send for prices.

JACOB SCHULZ,
1325 E. Broadway, Louisville, Ky.

ROSES.

20,000 YOUNG ROSES

In 2 1/2 and 3 1/2-inch pots in fine condition of the following varieties:

American Beauty, The Beauty, Mornet, Perle,

Niphotos, Bennett, Pierre Guillot and La France.

For prices apply to **GARFIELD PARK ROSE CO.**

108 W. MADISON STREET, CHICAGO.

ROSES.

Large Fine Plants from 4-inch pots

Catherine Mermet, per 100

Perles, Niphotos and Mme. Wattenille, 12.00

SMILAX.

Strong plants from 2 1/2-inch pots, \$1 per 100; \$25 per 1000.

THOS. BOCK,

Cor. 10th & Heaton Sts., HAMILTON, O.

The Cut-Flower Trade.

The Latest Floral Styles.

BY OUR NEW YORK CORRESPONDENT.

It has generally been the case at this time of the year that prevailing styles in flowers have been somewhat unsettled and of questionable taste. This summer it is altogether different; fashions are as perfectly defined as in midwinter, and they are harmonious and in admirable taste.

White and pale tinted flowers are decidedly preferred both for the decoration of apartments, tables, and for personal wear. White arrangements for rooms are made in exquisite style, these wearing an air of neatness and brightness never bestowed by colored bloom. The drawing-rooms of a Yonkers mansion were dressed this week with double white hollyhocks. Long spikes of these filled tall vases in the corners of the rooms, on the hearths and at each side the pier glasses. At the base of the mirrors was a bank of ferns, which ran up high one side and down the other, and this was studded with double white hollyhocks. A mantel bank was made in the same way as those at the base of mirrors, but it extended only about over three-quarters of the mantel-piece, leaving opportunity for the novel mantel scarf which is a feature of Thorley's. This scarf is an easy knot and tab ends made of very light wire-work and filled in with light foliage and flowers. It can be made up in various ways and is highly effective at a mantel end, on one side a cabinet or an easel. It should have an end fringing with flowers or foliage. Flat glass dishes of hollyhocks with an edging of geranium leaves were placed on cabinets and tripods. These were made as like the old-fashioned flower-pots of our grandmothers as possible. They were placed on mats of ferns, which are now in vogue for laying under the glass and silver flower-holders so popular for ornamenting tables.

There is a craze for the white and purple asters now in bloom. Banks are made of the potted plants, loose bouquets are tied of the bloom, and they are used with lovely effect for trimming gowns. The black lace frocks so fashionable this season are made up over pale lavender, pink, blue and corn-colored silk. Purple asters loop the lace on the lavender silk roses, and a garland of these is put over the front breadth of the lace. It is simple, but beautiful. White asters are worn on the pink, blue and yellow dresses, as are pea blossoms.

Tuberose are a most fashionable flower at the watering places for trimming evening dresses. This flower is sometimes introduced into vases for apartment decoration, but its heavy odor is objectionable to many. A single spike of tuberose placed among the foliage in the corridor will perfume the house delightfully. Pattern wall pockets on the doors are very stylish this season. They are arranged with croton leaves, small caladiums, or with flowers if on the room side of the door. Foliage only is suitable for halls.

The most stylish bouquet made at Long Branch is composed of agrostis, mignonette, and a cluster of roses, corn flowers or pea blossoms. The bunch is formed quite flat, the grass being the background, the mignonette laid on this, and then the roses, etc.

The most fashionable dinners are taking place on board the palace yachts which are now flying over the waters

from one resort to another. Leading florists are called hither and thither to decorate tables, and there is certainly some charming work accomplished. A skiff was suspended over the table in the center of the saloon at the dinner of a famous yachtman given yesterday off Staten Island. The boat was five feet long, and it was formed of water lilies and filled with asparagus and adiantums, excepting in the middle, where there was a cluster of longiflorum lilies and Durian roses. The favors were made of foliage. Another pretty arrangement was made for a yachting dinner party with conch shells filled with foliage and Mermets roses. A large shell was suspended over the table center; there were shells filled with flowers at each end sitting on mats of foliage.

Brides are carrying bouquets of lily of the valley with a cluster of gardenia or stephanotis at one side, which is fastened down so as to cover the stems. Neither kid nor ribbon finishes the stems, but



simply the flowers and their own foliage. Gardenias are used largely for trimming bridal gowns. They are put on in bands around the skirt instead of lace flounces, when the material is silk or satin. Very young brides are wearing tulle, when the gardenias are arranged to hold the drapings, and look like waxen rosettes. Bridesmaids carry bunches of white asters, Marguerites, or pea blossoms or baskets of bouquet. Small Marie Antoinette baskets, lined with a colored silk to match the dress, are very gracefully filled with pea blossoms and grasses, or asters and ferns.

Purple asters are very fashionable for the biers and banks of flowers made for funerals. A bier of these blossoms was made in a church last Saturday. It was four feet high, and was finished with myrtle. Over the casket, which was black velvet, was a garland of white roses which trailed onto the bier, where its end was fringed with lily of the valley. The garland is used more than set designs for laying on caskets. It is sometimes formed of bright flowers. A bier of pink flowers was formed for a little girl's casket. It was composed of Mermets and begonias exquisitely blended and festooned with adiantums. The casket was white and over it was a garland of Jacqueminot roses.

Very rich altar designs are sent weekly to the churches at the seaside, where fashionable people congregate to worship. Fine taste and beautiful workmanship characterize the pieces. Rush straw vases are filled with lilies, and elastic

vases are formed entirely of flowers and handsomely filled. An altar-cloth was made last Sabbath out of yellow daisies for a church at Saratoga. It looked like satin from the body of the church. Covers for reading desks, pulpits and lecterns are made, instead of placing high bouquets in these positions. Drappings of flowers are very suitable for altars, and are more fashionable than set pieces.

Facts About June Brides.

If the statement of a fashionable florist can be given credence, one of the most obdurate persons in existence is a June bride. Said he the other day: "The June brides are very hard to deal with. They have had a regular corner in sentiment. They'll not have a rose, though 'em, nor a violet, nor a carnation, and until this week, when there's no buying them for love or money, an orange blossom. It was all lilacs, white lilacs, when the season was over, and no way of putting them back, and then lilies of the valley when they had all stopped blooming; then it was sweet peas, which ain't a bad idea; and now it is apple blossoms—apple blossoms in June, when the apples are fit for eating. 'But,' says I to one of my best girl customers, 'there are no apple blossoms, they're gone,' and she looked up as fierce as a little cock-sparrow, and she says: 'I won't have roses nor orange blossoms; there's no sentiment in these expensive things. I want something sweet, and girlish, and simple. I adore simplicity. I tell you what you do, Mr. Florist; you just force me some apple blossoms; they force apples—why not apple blossoms?'"

New York Retail Prices.

Perles, Niphetos, Sonvs., Bennetts, Jacques, \$1; Cooks, 2; Mermets, \$1.25; hybrids, \$3; Bon Silenes, 50 cents; La France, \$1.50; carnations, 40 cents; Lilium longiflorum, \$2; gladioli, \$1.50 a dozen; mignonette, 25 cents a bunch.

A YOUNG girl at Long Branch fastens her bathing dress at the throat with a water lily.

REMARKABLE FLOWERS.—Again the old chestnut about the flower "discovered" in Central America, "which is white in the morning, red at noon and blue in the evening," is making the rounds of the daily press. It was undoubtedly "discovered" by the same reporter who detected blue-tailed pink snakes in his boots.

WOOD FOR BENCHES.—Will some readers of the FLORIST state their experience as to the most durable wood to use in greenhouse benches? I have heard that cypress was very durable and would outlast yellow pine for sleepers in benches. Yellow locust is probably the most durable wood for the purpose, but in many places it is very scarce and high-priced.

I. C. WOOD.

Fishkill, N. Y.

FLOWERS IN THE NEW YORK STOCK EXCHANGE.—The tragic death of Vice-President Hill in the New York stock exchange, who was stricken down after announcing the death of his friend, made a deep impression. Mr. Hill was laid out in the corridor, and the first thought was to bring flowers. So members went and purchased cut bloom in quantities, which was laid around the dead man and formed a floral couch for the remains while awaiting the undertaker.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.25.

Advertisements, 10 cents a line, Agate;
Inch, \$1.40; Column \$14.00.
Cash with Order.

No Special Position Guaranteed.

Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.

No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
flowers pertaining to those lines ONLY. Please to
remember it.27 Advertisements for August 15 issue must
REACH US by noon, Aug. 5, at latest.

THE AMERICAN FLORIST CO., Chicago.

Catalogues Received.

Henry A. Dreer, Philadelphia, plants
and seeds; Clark Bros. & Co., Carlisle,
England, seeds and nursery stock; Van
Velsen Freres, Haarlem, Holland, Dutch
bulbs; Exeter Machine Works, Exeter,
N. H., steam heating apparatus; Hay &
Prentice Co., Chicago, hot water boilers;
Fred Roemer, Guedingburg, Germany,
flower seeds; Albert Bart, Syracuse, N.
Y., hot water boiler; Henry G. Higley,
Cedar Rapids, Ia., retail catalogue of
filled floral designs, with illustrations;
Ellwanger & Barry, Rochester, N. Y.,
strawberry plants.

THE NATIONAL GAME.—The Phila-
delphia florists have organized a base
ball nine, and are prepared to back their
nine against any nine composed of
florists from other cities.

WATER ROOF FOR GREENHOUSES.—A
flat glass roof covered with two inches of
water is a novelty introduced by an
Englishman, described in the *Garden* of
June 11. The originator of the system
states that this roof keeps out cold better
in winter and excessive heat in summer,
half hardy plants having been carried
over winter under it without fire heat.

GRUBS IN OPEN GROUND.—The com-
mon grub-worm, the larva of the "May
bug," is laying havoc with our lawns
and flower beds. We have tried lime,
tobacco water, and a solution of cop-
peras, but without being able to exter-
minate them. If any reader of the FLORIST
has succeeded in killing them, will he
be pleased relate his method for the
benefit of A SUFFERER?

HARDY ORNAMENTAL PLANTS.—A
list of ornamental plants which are
hardy in Michigan, prepared for a class
in landscape gardening, by L. H. Bailey,
Jr., of the Michigan agricultural college,
Lansing, Mich., should be of great value
to planters. It is in the form of a pam-
phlet, and gives both common and
botanical names, with comments as to
habit, time of blooming and best posi-
tions for each.

"IMMATURE."—"Practical Floricu-
ture" will probably be the best book for
your purpose. It can be obtained at this
office. It would take many volumes of
the FLORIST to hold all the details in re-
gard to which information is asked.
Read carefully the articles which appear
directions given must frequently be var-
ied to meet the requirements of your
case. Close observation and carefully
noting effects from certain causes in your
own experience will help to educate you
as a florist more than any other one
thing, as printed instructions must al-
ways be more in the nature of sugges-
tions than of minute directions.

Wholesale Markets.**Cut Flowers.**

	BOSTON, July 25
Roses, Tens.	4.00
Fancy.	4.00
Adams.	1.50
Adiantum.	1.50
Saxif.	1.50
Lily of the valley.	1.50
Sweet Peas.	1.50
Pink pond lilies.	1.00
Carnations.	1.00

	NEW YORK, July 25
Roses, Perles, Niphotos.	2.00
Bennetts, Saxys.	2.00
Morms.	1.00
La France.	1.00
Carnations.	1.00
Lily of the valley.	1.00
Saxif.	1.00

	CHICAGO, July 25
Roses, Perles, Niphotos.	1.00
Morms, Bennetts.	1.00
Morms.	1.00
Am. Bouquet.	1.00
Carnations.	1.00
Saxif.	1.00
Sweet Peas.	1.00

	PHILADELPHIA, July 25
Roses, Perles, Niphotos.	2.00
Bennetts, Saxys.	2.00
Morms, La France.	1.00
Am. Bouquet.	1.00
Carnations.	1.00
Saxif.	1.00
Sweet Peas.	1.00

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FOR JULY AND AUGUST.

PINK POND LILIES.

LILY OF THE VALLEY,
FANCY ROSES,
SWEET PEAS,
ADIANTUMS.

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Greenhouses, Oreskill, N. J.

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Thos. Young, Jr., & Co.,

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BOSTON, MASS.

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be sent at full rate to insure delivery for
early morning trains. Store open from 9 a. m.
to 5 p. m. Return telegram if order cannot be filled,
or if desired in any case. Mention Am. Florist.

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WHOLESALE CUT FLOWERS

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Coupon when ordering by telegraph. For prices, etc.,
Address.
J. L. DILLON, BLOOMSBURG, PA.

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Wholesale Florists,
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(Formerly at 22-23d ave.)
Bet. 27th & 28th sts. NEW YORK.



The Cleveland Flower Show.

The flower show was a great success in the kind and quality of the plants exhibited. The exhibition was given under the auspices of a number of prominent ladies in connection with the Floral and Gardening association, and was held in the First Baptist church, on the corner of Euclid and Erie streets. It was the first floral exhibition attempted on a large scale in this city for years, and the exhibition of plants, both specimens and collections, surprised both commercial and private gardeners.

The entrance was flanked on either side with specimen geraniums. The plants were well grown, and averaged from 18 to 25 trusses per plant, while an *Amelia* Bisset plant blossomed; two long tables were filled with these. Suspended from the gallery were some fine hanging baskets, both filled with mixed and individual varieties of plants. A large fuchsia basket was a beautiful thing.

The sides of the building had been arranged with staging for hanging plants, while just below it was a long table running around the hall, on which were arranged cut flowers, floral designs, fruits and low specimen plants. Looking up the center of the room, a white vase (carrations) on a green pedestal of lycopodium and filled with *Jacquemint* roses, greeted the eye. Over the pedestal is thrown the finishing touch to this beautiful floral picture—a scarf drapery of pansies, with a broad shaded band of scarlet and pink geraniums with a fringe of fuchsias.

Vases seem to have struck the fancy of our florists, as there were only three vases exhibited by any of the exhibitors. One of the most attractive designs was a table decoration. Three hundred dollars' worth of cut glass and silver were claimed to be on this table. Tasteful menu cards, bearing the names of the leading ladies engaged in the show, graced each plate. The center of the table was occupied by a flat basket filled with *Jacquemint* roses and auratum lilies; a scarf drapery of *Jacques* was thrown over one corner, while each of the eight plates was graced by a lady's corsage of *Jacquemint* tied with light moss-green watered ribbon. A compliment was shown the Florist club by Mrs. H. Hart, of Detroit street, who exhibited as her floral design a pillow, the center of white satin, on which was embroidered in forget-me-nots, "The Floral and Gardening Association," on the corners were bunches of *Niphetos*, *Mermet*, *Perle* and *Bennett* roses, tied with ribbon to match.

A ship, which was easily made and was also very effective, was composed of white paeonies for the hull, freighted with *Jacquemint* roses, the sails of white satin and ropes of chenille cord. The vessel sailed on a sea of green ferns, with a most graceful bunch of water lilies laid carelessly on the bank. It was a most effective design for the time employed in making it, which was said to be fifteen minutes. The carpet or geometrical beds attracted quite their share of attention. These were located in front of a large bank of tropical plants on the floor, directly opposite the entrance; only three beds were exhibited, though seven were entered.

On the opening evening the florists attended in a body, all wearing badges, almost all the members being present, and fifty three badges were disposed of. Premiums were awarded to the following: For plants—J. H. Wade, Mrs. H.

B. Harlbaut, Col. W. H. Harris, Mrs. Osborn, J. B. Perkins, Jacob Perkins, W. J. Boardman, D. P. Eells, Peter Herke, Archibald Campbell, August Schmitt, P. J. Probeck and Mrs. E. G. Campbell. For cut flowers—J. H. Wade, Joseph Perkins, J. M. Gasser, Mrs. E. G. Campbell and Peter Herke. For floral designs—J. M. Gasser, Mrs. E. G. Campbell, Mrs. H. Hart and Miss Louie Radtke. For fruit—Mrs. H. B. Harlbaut, E. H. Cushman, Matthew Crawford, F. C. Miller & Son, J. R. Sked and Chris. Weigel.

E. G. C.

Lilacs.

In shrubberies lilacs are invaluable, while few plants are so common or so generally appreciated in suburban gardens as the ordinary forms of *Syringa vulgaris* and *S. persica*. Quite a large trade has also sprung up in forced flowers early in the year, and small plants in pots are also much valued for decorative purposes, grouping either in the conservatory, rooms or corridors. Small standards are most useful for such purposes, and the variety *Charles X.* is especially adapted for them, with clear stems one to two feet high, and neat bushy heads. The variety named is compact in growth, flowers freely and early, and therefore forces well. For culture in pots several varieties have been introduced of recent years, mainly from the continent, but for general planting out of doors few have paid much attention to any but the ordinary old forms that have been grown for so many years. One handsome variety of recent introduction was brought to our notice a few weeks since by Messrs. Wm. Paul & Son, Cheshunt—namely, *Marie Lequay*. The flowers are pure white, of great size and substance, the lobes long and oval in form. The panicles are dense compact conical trusses, and the fragrance powerful. It is one of the *S. vulgaris* varieties, and would make a grand addition to any shrubbery.

A selection of the best from a continental collection of sixty varieties was given some time ago in these pages, and comprised the following: Dr. Lindley, massive trusses of purplish lilac flowers, *Alba grandiflora*, splendid spikes of pure white blooms; *Gloire de Moulins*, very fr e, dark and effective; *Goliath*, im-

mense trusses of dark lilac flowers; *Duc d'Orleans*, soft rose color, late, distinct and attractive; *Schweelavina*, silvery blush; *Verschaefeltii*, pale lilac, bold trusses; *Rubra insignis*, dark lilac, massive heads; *Gloire de Courcelles*, very large, medium color, late; *Madame Briot*, lilac deepening to violet, the darkest of all; *Hyacinthiflora*, a distinct and beautiful variety with fine spikes and symmetrical double flowers; and *azura plena*, double, free and effective.—*Journal of Horticulture*.

BALTIMORE.—E. Whitman & Sons Co. are reported to have assigned.

PHILADELPHIA.—I. V. Faust succeeds S. Y. Haines & Co. at 64-66 N. Front street and 100 Arch street.

ALBANY, N. Y.—Price & Reed succeeded Price & Knickerbocker, seedsmen and dealers in agricultural implements, July 1.

PANSIES ONLY! The grandest collection ever offered, including ALL the latest NOTITIES. Our seed is warranted to be Fresh, Pure and strictly First-Class. Send for new Circular and Special Price List to the Trade.

ALBERT REZ, Douglaston, N. Y.

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SPIRAPHUM

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\$1.00 per bbl. or six bbls. for \$5.00. Bouquet Green, \$2.00 per bbl.

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TRY DREER'S GARDEN SEEDS

Plants, Bulbs, and Requisites. They are the best at the lowest prices. TRADE LIST issued quarterly mailed free.

HENRY A. DREER, Philadelphia

Dissolution of Copartnership.

The Copartnership heretofore existing between the undersigned under the firm name of Miller & Hunt, is this day dissolved by mutual consent. The settlement of the affairs of said copartnership in liquidation can be made with either party.

W. W. MILLER.

M. A. HUNT.

Wright's Grove, Chicago Aug. 1, 1887.

A Card.

In withdrawing from the firm of Miller & Hunt, I desire to thank those in the trade with whom I have become personally acquainted, through correspondence and otherwise, for the many favors extended by them to the firm of which I have now been a member. As I have been a former partner, Mr. Geo. W. Miller will conduct the wholesale plant trade at the old stand, and I trust that he will do his utmost to place the large trade who have committed their orders to us while together, I would be proud for him in the future, the portion so freely accorded us as a firm, as well as the favor extended to me through a long personal acquaintance.

Chicago Aug. 1, 1887.

M. A. HUNT.

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ASSORTED CRATE No. 3, 5 1/2 inch, contains 30 1/2 inch,
20 8 inch, and 10 6 inch, all hand made.

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These syringes are made with special reference to
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Shrubs and Roses. Have a remarkably fine stock
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Can supply ear loads of elegant, large Nursery grown
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And We Can Prove It.

A Boiler will be on exhibition at the Convention. Don't
fail to examine it.

J. D. CARMODY,

FLORIST,

EVANSVILLE, IND.

Buffalo.

Pink pond lilies are handled lightly here.

Good copious rains the 10th and 11th were very welcome, and all outdoor stuff is booming.

A bigger representation from our modest town will be at Chicago this year than at past meetings of the S. A. F.

Outdoor stuff on the Washington market is plenty and cheap, but good flowers are still sought for at the stores.

Long utilites root, clumps of wild ferns to advantage in dressing his large show window. They cost next to nothing, last well, and are effective for the purpose.

Many in the trade here took a lively interest in the Scotch picnic July 23, some going as far as to shut up shop in honor of the occasion.

More of our townsmen leave the city each succeeding summer, and we gradually put on the pleasant (?) metropolitan airs of pretending to do only what funeral work comes our way.

One of our florists visiting the Toronto flower show, held on the 20th and 21st, reports good plant displays, but bouquets and designs hardly worth showing from our standpoint. Midsummer, however, is hardly a time to harshly criticise flower displays.

Daniel B. Long's new flower store in the Tiff house block is a success, he says, though the rent is comparatively high. He claims to have the finest and most complete flower store west of New York. It certainly is roomy, and a model of good taste, convenience and utility.

The Buffalo "boom" attacks the growers, as well as manufacturers and land speculators. Jas. Buxton is starting a new establishment of several houses at Upper Black Rock. Fr. Katoll is building a fine large rose house 150 feet long. Rudolph Boettger, formerly head man at Eggertsville, will start with two houses at Eggertsville. It is also quietly whispered that our latest new-comer, J. H. Rebstock, has broken ground for several houses at Cold Springs. W. J. Palmer at Lancaster has a large additional new house nearly ready for the stock.

NOW IS THE TIME TO PLANT POT GROWN STRAWBERRIES

To secure a good crop next season. Our plants are in the finest condition. Catalogue containing full cultural directions mailed free.

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E. HIPPAARD, Youngsstown, Ohio.
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PRICES MUCH REDUCED AND VERY CHEAP.

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Anemones.

LILY OF THE VALLEY, pipes and shoots.

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Send for price list for Fall planting and forcing plants. Large stock.

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Inform the trade that his wholesale catalogue has been mailed, intending purchasers who have not received it, should write for one before ordering elsewhere.

Special quotations for large quantities will be given on application, while prime quality at the very lowest prices is guaranteed.

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SEGERS & CO.,

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White Hyacinths at \$26.00 per 1000; White Tulips at \$6.50 per 1000, and Scarlet van Thol Tulips at \$4.00 per 1000.

Wholesale Catalogue containing all Holland grown Bulbs and Bulbous Roots, will be mailed by them free on application.

My Catalogues
for 1887, of Bedding Plants, Roses, Palms, Orchids, etc., mailed to all applicants. Large stock of the following on hand at cheap rates: *Ampelopsis Veitchii*, various sizes *Tea*, and *Hybrid Roses*, all the leading sorts, named *Chrysanthemums*, *Præcia Indivisa*, various sizes, *Echeverias*, *Small Ferns*, *Geraniums*, double and single, best named sorts, *Arca Lutescens*, in 2½, 4, 5, and 6-inch pots, *Lantana Borbonica*, *Scaevola Elegans*, *Orchidea Egia*, *Corypha Australis*. Other Palms, such as *Cocos Weddelliana*, *Chamærops Excelsa*, *Phoenix Reclinata*, *Phoenix Rapiola*, *Phoenix Tennis*, *Kentias* of sorts. *Glaziovra Insignis*, fancy named *Clematis*, and other vines, etc. Prices given on application.

WM. C. WILSON, FLORIST,

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Hyacinths, Tulips, Crocus, Narcissus
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GROWERS OF

HYACINTHS, TULIPS,
CROCUS, NARCISSUS,
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GROWERS OF

HYACINTHS, TULIPS, CROCUS,

Narcissus, Spireas, etc,

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GREENHOUSE HEATING.

BY A. B. FOWLER.

Explains fully all the best systems of heating greenhouses by both hot water and low pressure steam. Tells you the points to consider in selecting an apparatus. Tells you the results of the latest scientific experiments. Shows how to compute the number of feet of pipe required for a given space, draft and other important matters.

It is highly commended by Mr. John Thorpe and others. Postpaid, 25c.

Sent on receipt of price. Address,
AMERICAN FLORIST,
CHICAGO.

Trade Notes.

CALLA, O.—L. Templin & Sons are adding four more new houses to the large block built by them last season. They make a specialty of the mailing trade, which is growing rapidly and necessitates continual increase of capacity.

TORONTO, ONT. Mr. Geo. W. Grote has purchased twenty-one acres of land on St. Clair avenue, and erected thereon four large greenhouses containing about 1,000 feet of glass. James Fleming died of bronchitis May 9. Mrs. Fleming will probably continue the business. John F. Horsley has sold out to S. Tidy & Son, who take possession Aug. 1. Mr. Horsley leaves here Sept. 1 for Los Angeles, Cal. The Dominion and Industrial exhibition will be held here Sept. 5 to 17 next. Prizes to the amount of \$30,000 are offered for competition.

DETROIT.—A Detroit reader states that the prices given by our correspondent in our recent plant trade report were too high. He states that the average prices actually received for plants in 4-inch pots were, for geraniums, fuchsias and heliotropes, \$1 to \$1.25 a dozen; tea roses, \$2.50 to \$3; H. P. roses, \$4 to \$6; verbenas and pansies, 40 cents to 50 cents; plants for carpet beds, such as alternantheras, echiverias, sedums, etc., 50 cents a dozen, \$3.50 a hundred, and \$30 a thousand. Sales were larger than last year. Another Detroit correspondent states that the demand for palms and other choice stuff was better than last year, as was also that for hardy ornamental stuff.

MONTREAL.—The success which attended the first summer exhibition of the Montreal Hort. society, held June 30, will doubtless insure its annual recurrence in the future. In addition to competitive exhibits, there were shown fine collections of orchids, anthuriums, ferns, dracaenas and palms. Two fine seedling carnations were shown by the Com. St. Paul nurseries. A fine collection of cut bloom exhibited by Mr. W. Dunlop, of Outremont attracted much attention, as did also some fine examples of the old Canterbury Bells shown by Mr. A. Joyce. Prizes were awarded to the following exhibitors of roses: R. Jack, Geo. Trussel, W. Wilshire and J. Bennett; for pansies to Geo. Trussel, W. B. Davidson and E. J. Maxwell; for strawberries to R. Jack, W. Evans and Geo. Trussel.

WASHINGTON.—William Wolter, of Fourteenth street road, died recently after a short illness. His widow will continue the business. Diedrich Bros., florists, have dissolved. Theodore will continue the business at 1227 F street, N. W., and Bernhard will grow flowers at Alexandria, Va. The funeral of David L. Morrison occurred July 18. He had been a great admirer of flowers, and some time since gave directions that when he died a florist should be engaged to arrange the flowers for his funeral. In compliance with this wish Messrs. Small & Son were engaged to take charge of the matter, and the parlors were one mass of plants and flowers, and the gas-fixtures trimmed with smilax. The desk and chair of the deceased were also decorated with flowers, while masses of roses covered the mantelpieces, and foliage plants filled every nook. In these surroundings the casket containing the dead lay. Large floral pieces rested at the head and foot of the casket.

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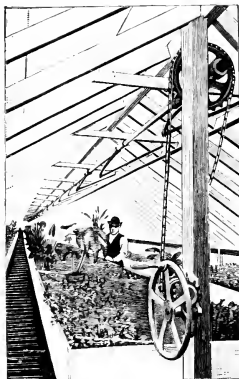
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✻ A SPECIAL TRAIN, ✻

(See another page for particulars.)

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C. K. LORD, Gen'l Mgr. B. & O. R. R.,

BALTIMORE, MD.

Steam Heating for Greenhouses.

This subject has been pretty well discussed through the columns of the *Florist*, but I am satisfied it should be shown more clearly that any one starting a small place can heat it more satisfactorily with steam than hot water.

A year ago, when I started here with two houses, each 17 x 120, many people said if I heated with steam I should have to keep a night fireman. This I knew would not pay on a small place, but I concluded to try it, and with the aid of my friend Mr. C. S. Price (a neighboring florist), I put the steam in.

The place for the boiler was excavated to a depth of four feet; the 2½-inch flow pipe is at the highest point right over the boiler, and is connected with four 1½-inch pipes which run around the houses. The water line of my boiler is but six inches below the return pipe in the house; but I would advise all who can put their boiler two feet lower, to do it. I have a valve on each of the four pipes, so I can run from one to four pipes as the weather demands.

In regard to the cost, I am satisfied that the whole job complete did not cost two-thirds the amount that hot water would. My night fireman I have yet to engage, for with the exception of about four nights during the last winter, the fire was always fixed for the night from 9 to 10 o'clock. From the end of February and all through the months of March and April we fixed the fire at 6 P. M., and it was not again touched till 7 o'clock the following morning.

These houses were used for the forcing of roses for the Philadelphia cut flower market, and we always found our house within three degrees of 58°. Can any hot-water boiler beat this? I make these few remarks for the benefit of small beginners. If you erect only one house (18 x 80), and contemplate increasing, I would strongly advise the use of steam. When one small house only is needed, perhaps the best and cheapest thing would be hot water under pressure, but I cannot see where the economy is for a fair-sized place.

W. W. COLES.

NOTICE

OF

STOCKHOLDERS' MEETING.

CHICAGO, ILL., July 25, 1887.

Stockholders of the American Florist Company:

You are hereby notified that the annual meeting of the Stockholders of the American Florist Company will be held at the offices of the Company, 54 La Salle St., Chicago, Ill., August 1, 1887, at 8 o'clock P. M., for the purpose of electing Directors and officers for the ensuing term, and for the transaction of such other business as may come before the meeting.

J. C. VAUGHAN, Pres.
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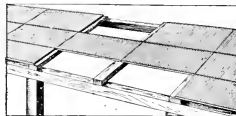
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Cincinnati.

Orders are so scarce now that they say the local florists photograph all they get. Roses are very scarce and of poor quality, the torrid weather having dwarfed all varieties.

The water lilies sold here come for the most part from Michigan. They are about the handsomest blossom now obtainable and stand the heat better.

July and August are dull months for florists. The terrible heat of the past few days has about killed trade; about all that there is doing is a little funeral work.

Florists who lacked a generous supply of water during the latter part of the month might as well have abandoned business. Outdoor flowers are about all burned up.

A combination funeral design made recently was a basket made entirely of lilies, over which a dove hovered. The name of the dead was traced over the face of the design.

Critchell designed a miniature express wagon the other day for a dead employee of the B. & O. Express Co. It was a handsome piece, and was made of carnations, rosebuds and tuberoses, the wheels and shaft being of asparagus.

Tuberoses have made their appearance since my last letter. At the hilltop opera the other evening a young girl created no little sensation by wearing a huge corsage bouquet of the blooms. They were wired and were in pyramidal shape.

A lady in the suburbs gave what she called a "country dinner" the other day. Field flowers were used exclusively in the decorations, and the center piece was a marvelous creation, made of a huge sunflower, and smaller ones radiating into the point of a star. It was a novelty, but not notably pretty.

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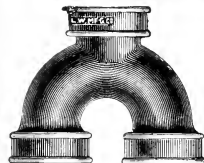
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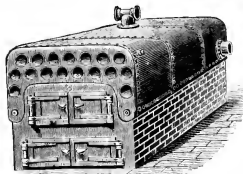
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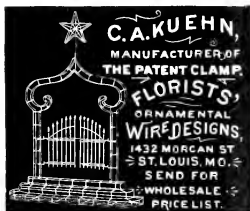
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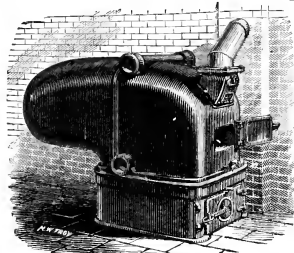
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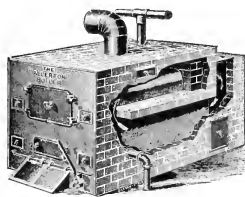
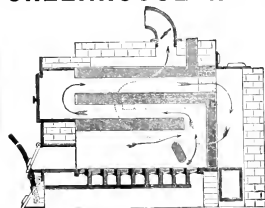
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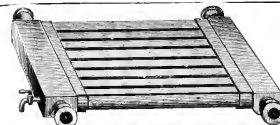
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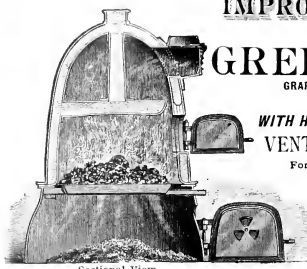
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Index to Advertisers.

Advertising Rates, etc.	221
Allen, W. S.	221
American Florist Co.	221
224, 226, 227	
Bakker Bros.	224
Baltimore & Ohio R.R.	221
Bayerlhorst & Co.	221
Becherhorst & Co.	221
Beniz, Albert	221
Blanc, A.	221
Boek, Theo.	221
Boyson, James L.	221
Bruckenthal & Co.	221
Brughe, L. B.	221
Bushington, Herman	221
Burt, Albert	221
Carmichael, J. D.	221
Crutcher, R. P. & Co.	221
Crosscup & West Eng.	221
Co.	221
Dalb, C. W. & Co.	221
Deakin, Robt. T. & Co.	221
Desmout, Wm.	221
De Veer, J. A.	221
Devine, Peter	221
Dick, John Jr.	221
Dickson, Albert	221
Dillon, J. L.	221
Drew, Henry A.	221
Elliot, H. A. Co.	221
Kilwagner & Barry	221
Exeter Machine Works	221
Fassett, F. K. & Bros.	221
Fluk & Co.	221
Germond, M. G. Co.	221
Garfield Park Rose Co.	221
Gasser, J. M.	221
Giddings, A.	221
Griffith, Jas.	221
Krowage, Henry J.	221
Hales, H. W.	221
Hallace & Thorpe	221
Hammond & Hunter	221
Hammond's Sing Shop	221
Harold, Thos. G.	221
Harvey, J. H.	221
Hay & Preston Co.	221
Henderson, Peter	221
Hennecke, C. & Co.	221
Herr, Albert	221
Higley, Henry G.	221
Hill & Co.	221
Hippard, E.	221
Hitchcock & Co.	221
Hooker, H. M.	221
Holt, Lemuel	221
Hulshof Bros.	221
Ives, J. H.	221
Jansen, Ed.	221
Jewett, J. K.	221
Joosten, C. H.	221
Keyes, John	221
King, James	221
Kreuzer, F. H. & Sons	221
Krick, W. C.	221
Krenburg, Oscar K.	221

Kuehn, C. A.	221
Lamborn, John I.	221
Latouch & Stahl	221
Lockland Lumber	221
Marshner & Hanahan	221
Matthews, Wm.	221
McAlister, F. E.	221
McGoy, Wm.	221
McFarland, S. Horace	221
Michell, Hantz Seed Co.	221
Miller, Geo.	221
Monon Route	221
Moore, Polman	221
Mott, J. L. Iron Works	221
Mailen, Geo.	221
Myers & Co.	221
Pease, W. C. & Bro.	221
Perkins, John J.	221
Sons	221
Pills, Immortelle	221
Sons Co.	221
Plenty, Josephus	221
Price, Charles S.	221
Prifer, W. C.	221
Quaker Machine Works	221
Radin, Wm.	221
Reed & Keller	221
Rolker, Aug. & Sons	221
Ross & Millang	221
Schulz, Jacob	221
Scollay, John A.	221
Seigler Bros.	221
Seigler & Co.	221
Sheppard, E. & Sons	221
Sheldin, Wm.	221
Shepheard & Wadley	221
Shields, Wm. & Co.	221
Solly, Geo. & Sons	221
Steffens, J.	221
Stewart, Wm. J.	221
Stewart & Harrison Co.	221
Texas, E. Y.	221
Thompson, Mrs. J. S. R.	221
Tons, James	221
Ude, J. W.	221
Van der Schied, H. & Son	221
Vanzant, J. C. & Co.	221
Ware, Thos. S.	221
Weathered, Thos. W.	221
Whitall Pottery Co.	221
Wilks, S. Mfg. Co.	221
Wilson Bros.	221
Wilson, Wm. C.	221
Withold, Geo.	221
Wolf, L. Mfg. Co.	221
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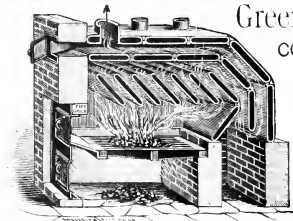
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